



**Colorado Department
of Public Health
and Environment**

OPERATING PERMIT

Colorado Springs Utilities – Ray D. Nixon Power Plant

First Issued: July 1, 2002

Renewed: April 1, 2013

AIR POLLUTION CONTROL DIVISION

COLORADO OPERATING PERMIT

| | | |
|------------------|--------------------------|-------------------------|
| FACILITY NAME: | Ray D. Nixon Power Plant | OPERATING PERMIT NUMBER |
| FACILITY ID: | 0410030 | 95OPEP106 |
| RENEWED: | April 1, 2013 | |
| EXPIRATION DATE: | April 1, 2018 | |
| MODIFICATIONS: | See Appendix F of Permit | |

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO:

Colorado Springs Utilities
P.O. Box 1103, Mail Code 0940
Colorado Springs, CO 80947-0940

PLANT SITE LOCATION:

Ray D. Nixon Power Plant
14020 Ray Nixon Road
Fountain, CO 80817

INFORMATION RELIED UPON

| | |
|--|--------------------------------------|
| Operating Permit Renewal Application Received: | June 30, 2006 |
| And Additional Information Received: | February 27, 2009, November 23, 2010 |

| | |
|---------------------|---------------------|
| Nature of Business: | Electric Generation |
| Primary SIC: | 4911 |

RESPONSIBLE OFFICIAL

| | |
|--------|-------------------------------|
| Name: | Bruce McCormick |
| Title: | Chief Energy Services Officer |

FACILITY CONTACT PERSON

| | |
|--------|--------------------------|
| Name: | Chris Welch |
| Title: | Environmental Specialist |

Phone: 719-668-5801

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SUBMITTAL DEADLINES

| | |
|--------------------------------------|--|
| First Semi-Annual Monitoring Period: | April 1, 2013 - June 30, 2013 |
| Semi-Annual Monitoring Period: | July 1 - December 31, January 1 - June 30 |
| Semi-Annual Monitoring Report: | August 1, 2013 and February 1, 2014 and subsequent years |
| First Annual Compliance Period: | April 1, 2013 - December 31, 2013 |
| Annual Compliance Period: | January 1 - December 31 |
| Annual Compliance Certification: | February 1, 2014 and subsequent years |

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

TABLE OF CONTENTS:

| | |
|--|-----------|
| SECTION I - General Activities and Summary..... | 1 |
| 1. Permitted Activities | 1 |
| 2. Alternative Operating Scenarios | 2 |
| 3. Prevention of Significant Deterioration | 3 |
| 4. Accidental Release Prevention Program (112(r)) | 3 |
| 5. Compliance Assurance Monitoring (CAM) | 3 |
| 6. Summary of Emission Units..... | 4 |
| SECTION II - Specific Permit Terms..... | 6 |
| 1. B001 – 2,049 MMBtu/hr coal fired or coal/woody biomass blend fired boiler..... | 6 |
| 2. B002 – 61 MMBtu/hr boiler fueled with natural gas or No. 2 distillate fuel oil..... | 19 |
| 3. P202 – Coal Handling | 25 |
| 4. P201 – Flyash Handling | 29 |
| 5. P205 – Cooling Tower | 31 |
| 6. Ash Disposal..... | 33 |
| 7. S003 & S004: Two natural gas fired combustion turbines, 330 MMBtu/hr each..... | 34 |
| 8. S001 & S002 – Two (2) Combined Cycle Combustion Turbines with HRSG & duct burners;..... | 41 |
| 9. Continuous Emission Monitoring and Continuous Opacity Monitoring Requirements | 50 |
| 10. Stack Testing | 54 |
| 11. Detroit Diesel GM V12 diesel-fired emergency generator engine (449 HP)..... | 55 |
| Cummins Model N-855-F diesel-fired emergency fire pump engine (218 HP)..... | 55 |
| Cummins Model NT495FP diesel-fired emergency fire pump engine (170 HP)..... | 55 |
| Caterpillar Model 3304 diesel-fired emergency generator engine (192 HP)..... | 55 |
| John Deere Model RG601HF001 diesel-fired emergency fire pump engine (290 HP) | 55 |
| SECTION III - Acid Rain Requirements | 60 |
| 1. Designated Representative and Alternate Designated Representative | 60 |
| 2. Sulfur Dioxide Emission Allowances and Nitrogen Oxide Emission Limitations | 60 |
| 3. Standard Requirements (version 4/16/09)..... | 61 |
| 4. Reporting Requirements..... | 64 |
| 5. Comment, Notes and Justifications | 65 |
| SECTION IV - Permit Shield | 66 |
| 1. Specific Non-Applicable Requirements | 66 |
| 2. General Conditions..... | 66 |
| 3. Stream-lined Conditions..... | 67 |
| SECTION V - General Permit Conditions | 68 |
| 1. Administrative Changes | 68 |
| 2. Certification Requirements..... | 68 |
| 3. Common Provisions | 68 |
| 4. Compliance Requirements | 72 |
| 5. Emergency Provisions | 73 |
| 6. Emission Controls for Asbestos | 73 |
| 7. Emissions Trading, Marketable Permits, Economic Incentives | 73 |
| 8. Fee Payment | 73 |
| 9. Fugitive Particulate Emissions | 74 |
| 10. Inspection and Entry..... | 74 |

TABLE OF CONTENTS:

| | | |
|-------------------------|---|----------|
| 11. | Minor Permit Modifications | 74 |
| 12. | New Source Review | 74 |
| 13. | No Property Rights Conveyed..... | 74 |
| 14. | Odor..... | 74 |
| 15. | Off-Permit Changes to the Source..... | 75 |
| 16. | Opacity | 75 |
| 17. | Open Burning | 75 |
| 18. | Ozone Depleting Compounds | 75 |
| 19. | Permit Expiration and Renewal..... | 75 |
| 20. | Portable Sources | 75 |
| 21. | Prompt Deviation Reporting | 75 |
| 22. | Record Keeping and Reporting Requirements | 76 |
| 23. | Reopenings for Cause..... | 77 |
| 24. | Section 502(b)(10) Changes | 77 |
| 25. | Severability Clause..... | 78 |
| 26. | Significant Permit Modifications | 78 |
| 27. | Special Provisions Concerning the Acid Rain Program..... | 78 |
| 28. | Transfer or Assignment of Ownership | 78 |
| 29. | Volatile Organic Compounds..... | 78 |
| 30. | Wood Stoves and Wood burning Appliances..... | 79 |
| APPENDIX A..... | | 1 |
| | Inspection Information..... | 1 |
| APPENDIX B | | 1 |
| | Reporting Requirements and Definitions..... | 1 |
| APPENDIX C | | 1 |
| | Required Format for Annual Compliance Certification Reports | 1 |
| APPENDIX D..... | | 1 |
| | Notification Addresses | 1 |
| APPENDIX E | | 1 |
| | Permit Acronyms | 1 |
| APPENDIX F | | 1 |
| | Permit Modifications | 1 |
| APPENDIX G..... | | 1 |
| | Compliance Assurance Monitoring Plan | 1 |

SECTION I - General Activities and Summary

1. Permitted Activities

- 1.1 This facility is an electric generation utility classified under the Standard Industrial Classification code 4911. The Nixon Power Plant consists of one steam driven electrical generating unit and the associated equipment (turbine-generators and cooling towers), two natural gas fired simple cycle combustion turbines driving electricity generators, and one natural gas/fuel oil fired auxiliary boiler, along with equipment associated with coal and flyash handling. The facility also includes the adjacent Front Range Power Plant (FRPP) which consists of two natural gas fired combined cycle combustion turbines, two heat recovery steam generators with duct burners, and one steam turbine.

The steam driven turbine/generator unit is rated at 227 megawatts gross capacity. The boiler has a nameplate rating of 2,049 MMBtu/hr firing coal. The boiler fires coal or a coal/woody biomass blend as the primary fuel and can currently use No. 2 distillate for an ignition fuel. Provision has been made in this permit for the future use of natural gas as an ignition fuel. The ignition fuels are used for startup of the boiler, flame stabilization, and the coal pulverizer startup. The facility also includes the various processes necessary to handle the coal, flyash and bottom ash. The coal and flyash handling systems are equipped with baghouses for air pollution emission control at appropriate point sources.

The two natural gas-fired simple cycle combustion turbines have a heat input rating of 330 MMBtu/hr each and are rated at 35 megawatts gross each. Each turbine is equipped with a dry low NO_x combustion system.

The FRPP is rated at 525 megawatts gross at -15°F for the entire plant, however plant output is dependent on ambient conditions. Power is generated using a configuration of two GE 7FA combustion turbines, two Vogt-NEM heat recovery steam generators (HRSG), with duct burners and one Alstom Steam Turbine. The HRSG is designed to utilize the exhaust energy available from the combustion turbine. The combustion turbines are equipped with dry low NO_x combustion systems. Emissions from FRPP exhausts through two 150 foot stacks (each stack is associated with a combustion turbine and a HRSG). Steam from each HRSG is directed to the steam turbine/generator set, then is condensed in an air cooled-condenser, and returned to the HRSG. The air cooled condenser is a dry cooling system and is not an emission source.

Both Nixon and FRPP are located on Colorado Springs Utilities' Clear Spring Ranch at 14020 Ray Nixon Road in Fountain, Colorado, just south of the corporate limits of Colorado Springs. The area in which the plant operates is classified as attainment for all criteria pollutants.

There are no affected states within 50 miles of the plant. There are no Federal Class I designated areas within 100 kilometers of the facility. Florissant Fossil Beds National Monument is a Federal land area within 100 kilometers of the facility. Florissant Fossil Beds has been designated by the State to have the same sulfur dioxide increment as a Federal Class I area.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 The Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this Operating Permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits:

| | | | | | | |
|----------|----------|---------|---------|---------|---------|----------|
| C-12,294 | C-12,061 | 12EP622 | 10EP324 | 10EP325 | 94EP132 | 99EP0851 |
|----------|----------|---------|---------|---------|---------|----------|

- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section II – Conditions 1.17 (Hg), 7.14 (opacity), and 11.13 (opacity), Section IV - Conditions 3.g (last paragraph), 14 & 18 (as noted).
- 1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit. Either electronic or hard copy records are acceptable.

2. Alternative Operating Scenarios

The permittee shall be allowed to make the following changes to its method of operation without applying for a revision of this permit.

2.1 Turbine Compressor Cleaning

- 2.1.1 For each “On-line Wash” of a compressor records of the following information shall be maintained and made available to the Division for inspection upon request:
- 2.1.2 start and completion date of the cleaning,
- 2.1.3 the amount and type of cleaning compound(s) used,
- 2.1.4 the Material Safety Data Sheet (MSDS) for the cleaning compound(s), and
- 2.1.5 the identification of which turbine was cleaned.

2.2 Confiscated Drug Disposal

- 2.2.1 Marijuana confiscated by the Colorado Springs Police Department may be disposed of by burning the material in the coal fired boiler (Unit B001).
- 2.2.2 The marijuana shall be added directly to the boiler through the combustion access doors.
- 2.2.3 The steam-generating unit shall be at operating temperature and engaged in electrical generation for the complete time of the disposal operation.
- 2.2.4 Records shall be maintained of the date and the start and completion time for the disposal.

3. Prevention of Significant Deterioration

- 3.1 This facility is located in an Area classified as attainment/maintenance for carbon monoxide (CO). Under that classification, all SIP-approved requirements for CO will continue to apply in order to prevent backsliding under the provisions of Section 110(l) of the Federal Clean Air Act. The facility is categorized as a major stationary source (Potential to Emit \geq 250 Tons/Year for PM, PM₁₀, SO₂, CO, and NO_x). In addition B001 is considered a major stationary source (Potential to Emit \geq 100 Tons/Year for PM, PM₁₀, SO₂, CO, and NO_x). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) for any pollutant as listed in Regulation No. 3, Part D, Section II.A.42 or a modification which is major by itself (i.e. a Potential to Emit of \geq 250 TPY of any pollutant listed in Regulation No. 3, Part D, Section II.A.42) may result in the application of the PSD review requirements.
- 3.2 The following Operating Permits are associated with this facility for purposes of determining the applicability of the PSD regulations:

| | |
|-----------|--|
| 96OPEP152 | Colorado Springs Utilities – Clear Spring Ranch Solids Handling and Disposal |
|-----------|--|

4. Accidental Release Prevention Program (112(r))

- 4.1 Based on information provided by the applicant, this facility is subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act).

5. Compliance Assurance Monitoring (CAM)

- 5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

Boiler B001

See Section II, Condition 1.14 for compliance assurance monitoring requirements.

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

| AIRS Point Number | Emission Unit Number | Description | Size | Pollution Control Device | Construction Permit |
|----------------------------|----------------------|--|-------------------------------------|---|---------------------|
| Boilers | | | | | |
| 001 | B001 | Babcock and Wilcox Pulverized Coal Front Fired Dry Bottom SN A-001, firing coal or coal/woody biomass blend. The coal burner igniters fire No.2 fuel oil or natural gas. | 2,049 MMBtu/Hr firing coal | Western Precipitation Thermoflex Fabric Filter (baghouse) | 10EP325 |
| 002 | B002 | Cleaver-Brooks boiler Model WL-2799 SN DL-60 firing No. 2 fuel oil or natural gas. | 61 MMBtu/Hr firing No. 2 fuel oil | None | C12-294 |
| Combustion Turbines | | | | | |
| 007 | S003 | General Electric Model PG6541(B) SN 296510, natural gas fired, simple cycle combustion turbine equipped with dry low NOx combustion system | 330 MMBtu/Hr | None | 94EP132 |
| 011 | S004 | General Electric Model PG6541(B) SN 296511, natural gas fired, simple cycle combustion turbine equipped with dry low NOx combustion system | 330 MMBtu/Hr | None | 94EP132 |
| Cooling Tower | | | | | |
| 010 | P205 | Unit 1 Cooling Tower – Marley 6515-4-10 | 88,000 gallons per minute flow rate | None | |
| Miscellaneous | | | | | |
| 006 | P201 | Flyash Silo - Bagfilter Discharge Vent #1 | | Fabric filter | 12EP622 |
| | | Flyash Silo - Bagfilter Discharge Vent #2 | | Fabric filter | |
| | | Two wet ash unloaders | | Water spray | |
| | | Pneumatic ash unloader | | Enclosed Truck | |
| | | Ash silo - vent | | Fabric filter | |
| 004 | P202 | Coal Crusher (secondary), conveyors and associated transfer points | | Dust Collector #2 Fabric Filter | 12EP324 |
| 005 | P202 | Crushed coal transfer to boiler bunkers – Fabric Filter | | Dust Collectors #3 & #4 Fabric Filters | |
| 003 | P202 | Stockpile reclaimers, tunnel conveyor and associated transfer points | | Dust Collector #1 Fabric Filter | |
| 008 | P202 | Coal off-loading, conveying and transfer points to stockpile Coal discharge onto stockpile, wind erosion due to exposed surfaces | | Application of chemical binders to stockpiles, surfactant spray & material moisture | |
| 009 | P203 | Ash Haul Roads | | None | 12EP061F |

| AIRS Point Number | Emission Unit Number | Description | Size | Pollution Control Device | Construction Permit |
|----------------------------|----------------------|---|---|--------------------------|---------------------|
| | P204 | Ash Disposal Landfill Operation | | None | |
| Front Range Power Turbines | | | | | |
| 012 | S001 | General Electric Combustion Turbine, Model No. 7241FA, Serial No. 297749, Natural Gas Fired, combined cycle operation, equipped with advanced low NO _x combustion system. Operated in conjunction with a Vogt-NEM heat recovery steam generator. | 1775 MMBtu/hr turbine 325 MMBtu/hr duct burner | None | 99EP0851 |
| 013 | S002 | General Electric Combustion Turbine, Model No. 7241FA, Serial No. 297750, Natural Gas Fired, combined cycle operation, equipped with advanced low NO _x combustion system. Operated in conjunction with a Vogt-NEM heat recovery steam generator. | 1775 MMBtu/hr turbine 325 MMBtu/hr duct burner | None | |
| Insignificant Activity | | | | | |
| | Gen 109 | Detroit Diesel GM V12 diesel-fired emergency generator engine | 449 HP | None | |
| | WP100 | Cummins Model N-855-F diesel-fired emergency fire pump engine | 218 HP | None | |
| | WP101 | Cummins Model NT495FP diesel-fired emergency fire pump engine | 170 HP | None | |
| | Gen114 | Caterpillar Model 3304 diesel-fired emergency generator engine | 192 HP | None | |
| | WP102 | John Deere Model RG601HF001 diesel-fired emergency fire pump engine | 290 HP | None | |

SECTION II - Specific Permit Terms

1. B001 – 2,049 MMBtu/hr coal fired or coal/woody biomass blend fired boiler

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | | Monitoring | |
|---|-------------------------|--|-------------------|---|-------------------|---|---|
| | | Short Term | Long Term | | | Method | Interval |
| PM | 1.1 | 0.1 lb/mmBtu | | | | Control Device Maintenance and Source Testing | See Condition 1.1 |
| Particulate Matter (PM and PM ₁₀) – Emission Calculations | 1.2 | | | From Source Testing required by Condition 1.1 | | Record keeping and calculation | Annually |
| Heat Content – Btu | 1.3 | | | | | CEM, Fuel Sampling, or Vendor Receipts | See Condition 1.3 |
| SO ₂ | 1.4 | 1.2 lb/mmBtu on a 3-hr rolling average | | | | CEM | <u>Continuous</u> : 3-hour rolling average |
| NO _x | 1.5 | | 2,853.3 tons/year | | | CEM | <u>Continuous</u> : 12 month rolling |
| NSPS Subpart D | 1.6 | PM: 0.10 lb/mmBtu & 20% opacity NO _x : 0.70 lb/mmBtu on a 3-hr average | | | | COM & CEM | <u>Continuous</u> : Opacity: 6-minute average NO _x : 3-hour average |
| Emission Calculations | 1.7 | | | Coal | Woody Biomass | Record keeping and calculation | Annually |
| | | | | SO ₂ , NO _x : CEM | | | |
| | | | | VOC: 0.06 lb/ton | VOC: 0.017 lb/ton | | |
| | | | | CO: 0.50 lb/ton | CO: 0.60 lb/ton | | |
| | | | | Pb: Fuel Analysis | | | |
| Fuel Usage | 1.8 | Ignitor Fuel: 5% of total heat input | | | | Record keeping and calculation | Monthly |
| Fuel Sampling | 1.9 | | | | | ASTM Methods | See Condition 1.9 |
| Continuous Emission Monitoring | 1.10 | | | | | See Condition 1.10 | |
| Opacity | 1.11 | Not to Exceed 20% | | | | COM | Continuous |

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|---------------------------------|-------------------------|--|-----------|----------------------------|--------------------|------------------------------------|
| | | Short Term | Long Term | | Method | Interval |
| | 1.12 | For certain operational activities – Not to Exceed 30% | | | | |
| Acid Rain Requirements | 1.13 | See Section III of this Operating Permit | | | Certification | Annually |
| Compliance Assurance Monitoring | 1.14 | See Condition 1.14 | | | | |
| Regional Haze | 1.15 | NO _x : 0.21 lb/mmBtu (30-day rolling) | | | CEM | <u>Continuous</u> : 30-day rolling |
| | | SO ₂ :0.11 lb/mmBtu (30-day rolling) | | | | |
| | | PM: 0.03 lb/mmBtu | | | Source Testing | See Condition 1.15 |
| NESHAP Subpart UUUUU | 1.16 | | | | See Condition 1.16 | |
| [State-only] Mercury | 1.17 | | | | See Condition 1.17 | |

1.1 Particulate Matter (PM) emissions shall not exceed 0.1 lb/mmBtu (Colorado Regulation No. 1, Section III.A.1.c). Compliance with this standard shall be demonstrated by the following:

1.1.1 Maintaining and Operating the fabric filter baghouse in accordance with the requirements identified in Condition 1.6.a (Good Air Pollution Control Practices).

1.1.2 Conducting performance tests in accordance with Condition 9.

1.1.3 The boiler baghouse(s) shall be maintained and operated in accordance with good engineering practices. The continuous opacity monitors (COMs) shall be used as an indicator of baghouse performance. Any maintenance performed on the boiler baghouse(s) shall be documented and made available to the Division for review upon request.

1.1.4 Following the compliance assurance monitoring requirements specified in Condition 1.14.

1.2 Annual emissions of PM and PM₁₀ for the purposes of APEN reporting and payment of annual fees will be determined using the emission factor for PM determined from the source testing required in Condition 1.1 and the annual average heat input to the boiler in the following equation:

$$\text{PM \& PM}_{10}: \quad \text{Tons/yr} = \frac{[\text{EF (lbs/mmBtu)} \times \text{annual heat input (mmBtu/yr)}]}{2000 \text{ lbs/ton}}$$

The annual heat input to the boiler, from coal, shall be calculated using the annual coal consumption and the average heat content of the coal, as determined by Condition 1.3 via the required coal sampling, or the average as measured and recorded by the continuous emission monitoring system (CEMs).

- 1.3 The coal heat content shall be calculated from the emissions recorded by the carbon dioxide continuous emissions monitor, or measured by testing as described in the fuel sampling plan required by Condition 1.9 of this permit.
- 1.4 Sulfur Dioxide (SO₂) emissions shall not exceed 1.2 lbs/mmBtu on a 3 hour rolling average when firing coal or a coal/woody biomass blend (Colorado Regulation No. 1, Section VI.A.3). Compliance with this standard shall be monitored using the continuous emission monitors (CEM) required by Condition 1.10 of this permit.
- 1.5 Nitrogen Oxides (NO_x) emissions shall not exceed 2,853.3 tons per year. Compliance with the annual limit shall be determined on a rolling (12) month total. By the end of each month a new twelve month total is calculated based on the previous twelve months' data. The permit holder shall calculate monthly emissions and keep a compliance record on site for Division review (Construction Permit 10EP325).

Compliance with this limit shall be monitored using the CEMs required by Condition 1.10 of this permit.

- 1.6 This source is subject to the New Source Performance Standards requirements of Regulation No. 6, Part A, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971, including, but not limited to, the following:
 - 1.6.1 PM emissions shall not exceed 0.10 lb/MMBtu (§60.42(a)(1)).
 - 1.6.2 PM emissions shall not exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity (§60.42(a)(2)).
 - 1.6.3 NO_x emissions shall not exceed 0.70 lb/MMBtu (§60.44(a)(3)).
 - 1.6.4 Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined in §60.45(g).

In addition, the following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, apply.

- a. At all times, including periods of start-up, shutdown, and malfunction, the facility and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A. General Provisions from 40 CFR 60.11)
 - b. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
 - c. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.
 - d. Written notification of continuous monitoring system demonstrations shall be submitted to the Division as required under § 60.7.
 - e. Written notification of opacity observation or monitor demonstrations shall be submitted to the Division as required under § 60.7.
 - f. Excess Emission and Monitoring System Performance Reports shall be submitted as required under § 60.7.
 - g. Performance tests shall be conducted as required under § 60.8.
 - h. Compliance with opacity standards shall be demonstrated according to § 60.11.
 - i. Continuous monitoring systems shall be maintained and operated as required under § 60.13.
- 1.7 The emission factors listed in Summary Table 1 have been approved by the Division and shall be used to calculate emissions from the boiler (EPA's Compilation of Emission Factors (AP-42)). Annual emissions for the purposes of APEN reporting and the payment of annual fees shall be calculated using the above emission factors and the annual fuel usage, as required by Condition 1.8, in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/ton)} \times \text{annual fuel usage (tons/yr)}]}{2000 \text{ lbs/ton}}$$

Annual emissions of SO₂ and NO_x shall be determined from the continuous emission monitors (CEMs) required by Condition 1.10.

Annual emissions of lead (Pb) shall be calculated by mass balance based on the coal lead analysis provided by the vendor or CSU testing.

- 1.8 The terms and conditions of this permit are based on the boiler burning bituminous, sub-bituminous coal, or a coal/woody biomass blend as the primary fuel. Natural gas and No. 2 distillate oil may be used as secondary fuels for firing the boiler burner igniters and shall not be used as the only fuel for the production of electricity. For this permit, fuel oil shall be defined to be No. 2 distillate. Igniter fuel use heat contribution shall not exceed 5% of the total annual heat input from all fuels. (Construction Permit 10EP325 as modified under the provisions of Section II, condition 1.3)
 - 1.8.1 Fuel Usage shall be recorded annually and maintained to be made available to the Division upon request. Fuel usage shall be determined using belt scales, vendor receipts, or corporate records as applicable.
 - 1.8.2 Compliance with the 5% ignitor fuel heat input annual limit shall be determined on a rolling (12) month total. By the end of each month a new twelve month total shall be calculated based on the previous twelve months' data. The source shall calculate monthly heat inputs and maintain a compliance record for Division review upon request.
- 1.9 Fuel shall be sampled in accordance with the requirements identified in the most recent Division-approved coal sampling/monitoring plan and fuel oil monitoring plan. The average heat, sulfur, ash, lead and moisture content of the fuel used in monitoring compliance with permit conditions shall be the values from the fuel testing program or vendor sample results. These fuel monitoring plans shall be revised upon request from the Division, and may be revised upon request by the permittee. Revisions to these plans are subject to Division approval.
- 1.10 The source shall install, certify and operate continuous emission monitoring (CEM) equipment for measuring opacity, SO₂, NO_x (including diluent gas either CO₂ or O₂), CO₂, and volumetric flow (40 CFR Part 75). The CEM systems shall meet the requirements in Condition 9.
 - 1.10.1 For purposes of monitoring compliance with the emission limitations in Conditions 1.4 and 1.6.3, for any hour in which fuel is combusted in the unit, the permittee shall calculate the hourly average SO₂ and NO_x concentrations in units of lb/MMBtu in accordance with the requirements in 40 CFR Part 75, except that replaced data shall not be included and the data shall not have been bias-adjusted. Replaced data shall be reported as monitor down time in the quarterly reports required by Condition 9.5. Hourly averages shall be used as follows to monitor compliance with the emission limitations in Conditions 1.4 and 1.6.3:

All valid hours, excluding hourly emission data generated during startup, shutdown or malfunction, shall be used in a 3-hour rolling average to monitor compliance with the emission limitations in Conditions 1.4 and 1.6.3.

- 1.10.2 For purposes of monitoring compliance with the emission limitations in Condition 1.5, for any hour in which fuel is combusted in the unit, the permittee shall program the Data Acquisition Handling System (DAHS) to calculate lb/hr NO_x emissions in accordance with the requirements in Condition 9.1.3 of this permit and 40 CFR Part 75, which includes replaced or bias-adjusted data, as applicable.

Specifically hourly mass NO_x emissions (in lb/hr) shall be calculated by multiplying the hourly Part 75 NO_x lb/MMBtu value (which includes replaced or bias-adjusted data, as applicable) by the hourly heat input value (MMBtu/hr) (which includes replaced and bias-adjusted data from the stack flow and % CO₂ measurements, as applicable). The hourly NO_x lb/MMBtu and heat input values are determined using equations F-6 and F-15 in Appendix F of 40 CFR Part 75. The resulting NO_x lb/hr value is then used in the following equation to determine monthly emissions:

$$\frac{\text{Tons}}{\text{mo}} = \frac{\sum \left(\text{Hourly Emission Rate} \left(\frac{\text{lb}}{\text{hr}} \right) \times \text{Operating Time} \right)_{\text{each hour}}}{2000 \frac{\text{lb}}{\text{ton}}}$$

- 1.11 Except as provided in Condition 1.12 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. (Colorado Regulation No. 1, II.A.1).

CSU shall operate, calibrate, and maintain a continuous in-stack monitoring device for the measurement of opacity. Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 20% opacity limit set forth above. The requirements for the opacity monitoring system are defined in Condition 8 of this permit.

- 1.12 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

CSU shall operate, calibrate, and maintain a continuous in-stack monitoring device for the measurement of opacity. Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 30% opacity limit set forth above. The requirements for the opacity monitoring system are defined in Condition 9 of this permit.

A record shall be kept of the type, date and time of the commencement and completion of each and every condition subject to Colorado Regulation No. 1, Section II.A.4 that results in an exceedance. The records shall be made available for review upon request by the Division.

- 1.13 This unit is subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be a complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit.

1.14 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to Boiler 1 (B001) with respect to the particulate matter limitations identified in Condition 1.1 as follows:

1.14.1 The permittee shall follow the CAM Plan provided in Appendix G of this permit. Excursions, for purposes of reporting are as follows:

1.14.1.1 A six minute average opacity value greater than 10%; or

1.14.1.2 Failure to perform the daily mechanical inspection.

Excursions shall be reported as required by Section V, Conditions 21 and 22.d of this permit.

1.14.2 Operation of Approved Monitoring

1.14.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.2.3 Response to excursions or exceedances

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any

necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 1.14.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.3 Quality Improvement Plan (QIP) Requirements

- 1.14.3.1 Based on the results of a determination made under the provisions of Condition 1.14.2.3.b, the Division may require the owner or operator to develop and implement a QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.14.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.14.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation

procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

- a. Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- b. Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- c. Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- d. Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- e. More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 1.14.3.3.a through d above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 1.14.2.3.b, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

- a. Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or
- b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other

applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.4 Reporting and Recordkeeping Requirements

1.14.4.1 Reporting Requirements: The reports required by Section V, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:

- a. Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.9(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and
- b. The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 1.14.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.9(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.4.2 General Recordkeeping Requirements: In addition to the recordkeeping requirements in Section V, Condition 22.a through c.

- a. The owner or operator shall maintain records of any written QIP required pursuant to Condition 1.14.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements (40 CFR Part 64 § 64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

1.14.5 Savings Provisions

- 1.14.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.14.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.14.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.15 Boiler 1 (B001) shall not emit or cause to be emitted nitrogen oxides (NO_x), sulfur dioxide (SO₂), or particulate in excess of the limits listed in the summary table (Colorado Regulation No. 3, Part F, Section VI.B.2)
 - 1.15.1 This source must comply with the limits and averaging times as expeditiously as practicable, as outlined in the Division approved compliance schedule, but in no event later than December 31, 2017. The source must maintain control equipment or operational practices required to comply with the limits and averaging times, and establish procedures to ensure that such equipment or operational practices are properly operated and maintained. (Colorado Regulation No. 3, Part F, Section VI.B.3)
 - 1.15.2 The source shall submit to the Division a proposed compliance schedule within sixty days after EPA's final approval of the RP portion of the Regional Haze SIP is published in the Federal Register. The Division shall publish these proposed

schedules and provide for a thirty-day public comment period following publication. The Division shall publish its final determinations regarding the proposed schedules for compliance within sixty days after the close of the public comment period and will respond to all public comments received. (Colorado Regulation No. 3, Part F, Section VI.B.4)

- 1.15.3 The CEMS, as required by Condition 1.10, shall be used to determine compliance with the SO₂ and NO_x Regional Haze emission limits in this Condition 1.15. Such limits are expressed in units of pounds per million Btu. The owner/operator shall calculate emissions in the applicable units.

In determining compliance with the SO₂ and NO_x Regional Haze limits, all periods of emissions shall be included, including startups, shutdowns, emergencies, and malfunctions. (Colorado Regulation No. 3, Part F, Section VII.B.1.a)

- 1.15.4 For any hour in which fuel is combusted in the boiler, the owner/operator shall calculate hourly average SO₂ and NO_x concentrations in pounds per million Btu at the CEMS in accordance with the requirements of 40 CFR Part 75 except for Part 75 requirements excluded by Section VII.B.1.a. Before the end of each operating day, the owner/operator shall calculate and record the 30-day rolling average emission rate in lb/MMBtu from all valid hourly emission values from the CEMS for the previous 30 operating days. (Colorado Regulation No. 3, Part F, Section VII.B.1.a.(i).(2).)

- 1.15.5 Unless particulate compliance testing was completed within the previous 6 months, within 60 days of the compliance deadline specified in Condition 1.15.1, the owner/operator shall conduct a stack test in accordance with Condition 10. This will be established via the compliance schedule submitted under Condition 1.15.2.

- 1.15.6 Owner/operator shall maintain the following records for at least five years: (Colorado Regulation No. 3, Part F, Section VII.D)

1.15.6.1 All CEMS data as required in the applicable regulation, stack test data, and data collected pursuant to the CAM plan, including the date, place, and time of sampling, measurement, or testing; parameters sampled, measured, or tested and results; the company, entity, or person that performed the testing, if applicable; and any field data sheets from testing. (Colorado Regulation No. 3, Part F, Section VII.D.1)

1.15.6.2 Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 60, 63, or 75. (Colorado Regulation No. 3, Part F, Section VII.D.2)

1.15.6.3 Any other records required by 40 CFR parts 60, Subpart F, Section 60.65, 63, Subpart LLL, 64 or 75. (Colorado Regulation No. 3, Part F, Section VII.D.3)

- 1.15.7 The owner/operator shall submit semi-annual excess emissions reports no later than the 30th day following the end of each semi-annual period unless more frequent reporting is required. Excess emissions means emissions that exceed the Regional Haze emissions limits. Excess emission reports shall include the information specified in 40 CFR Part 60, Section 60.7(c). (Colorado Regulation No. 3, Part F, Section VII.E)
- 1.16 **[Federal-only]** This unit is subject to the requirements in 40 CFR Part 63 Subpart UUUUU, “National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-fired Electric Utility Steam Generating Units”. Within one (1) year after the compliance date for these requirements, the permittee shall submit an application to modify this permit to incorporate the specific emission limitations and compliance monitoring methods the source has chosen in order to comply with these requirements.

As of the date of revised permit issuance [April 1, 2013], the requirements in 40 CFR Part 63 Subpart UUUUU, as updated on April 19, 2012, have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division adopts these requirements, they will become state-enforceable.

- 1.17 **[State-only]** These units are subject to the Standards or Performance for Coal-Fired Electric Steam Generating Units in Colorado Regulation No. 6, Part B, Section VIII, as follows:
- 1.17.1 These units are currently considered Low Emitters, since actual emissions are below 29 lb/yr, as calculated per the conservative methodology in 40 CFR Part 75 Subpart I (adopted by reference in Colorado Regulation No. 6). The units shall be routinely tested to maintain Low Emitter status as follows: (Colorado Regulation No. 6, Section VIII.B.10)
- 1.17.1.1 If actual emissions are less than or equal to 14 pounds of mercury per year, the source shall conduct performance testing on the unit annually using Division-approved methodology.
- 1.17.1.2 If actual emissions are greater than 14 pounds of mercury per year, the source shall conduct performance testing on the unit every six months using Division-approved methodology.
- Note: The performance testing value utilized in calculating emissions to be reported under this permit condition 1.17 shall be the highest concentration from any of the test runs, or 0.50 µg/scm, whichever is greater
- 1.17.2 The source shall submit written quarterly reports to the Division within 30 days of the end of each calendar quarter. The quarterly reports required shall include the unit’s operating hours and lbs/yr emitted for each calendar quarter. Within 30 days of the end of each calendar year, the source shall also report the pounds of mercury emitted for the prior calendar year. (Colorado Regulation No. 6, Section VIII.E.3)

2. B002 – 61 MMBtu/hr boiler fueled with natural gas or No. 2 distillate fuel oil

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|--------------------------------|-------------------------|---|-------------|--|-------------------------------|------------------------|
| | | Short Term | Long Term | | Method | Interval |
| PM | 2.1 | | 0.62 ton/yr | 2 lb/Mgal for No. 2 7.6 lb/MMscf for NG | Recordkeeping and calculation | Monthly |
| PM ₁₀ | | | 0.32 ton/yr | 1 lb/Mgal for No. 2 7.6 lb/MMscf for NG | | |
| SO ₂ | | | 2.23 ton/yr | 142S* lb/Mgal for No. 2 0.6 lb/MMscf for NG | | |
| NO _x | | | 6.17 ton/yr | 20 lb/Mgal for No. 2 100 lb/MMscf for NG | | |
| VOC | | | 0.23 ton/yr | 0.2 lb/Mgal for No. 2 5.5 lb/MMscf for NG | | |
| CO | | | 3.55 ton/yr | 5 lb/Mgal for No. 2 84 lb/MMscf for NG | | |
| Fuel Usage | 2.2 | 53,436 MMBtu/yr | | | | |
| Fuel Sampling | 2.3 | | | | See Condition 2.3 | |
| PM from Fuel Burning Equipment | 2.4 | 0.5(FI) ^{-0.26} lb/MMBtu | | | Calculation | One time demonstration |
| Sulfur Dioxide | 2.5 | 0.8 pounds of SO ₂ per million BTU of oil heat input | | | Recordkeeping and calculation | |
| Opacity | 2.6 | Not to Exceed 20% | | | Method 9 | See Condition 2.6 |
| | | For certain operational activities – Not to Exceed 30% | | | | |
| NESHAP Subpart DDDDD | 2.7 | | | | See Condition 2.7 | |

*S = weight percent sulfur in fuel

- 2.1 Total Particulate Matter (PM), Particulate Matter<10 µm (PM₁₀), Nitrogen Oxide (NO_x), Volatile Organic Compounds (VOC), Carbon Monoxide (CO) and Sulfur Dioxide (SO₂) emissions from the boiler shall not exceed the limitations stated in Summary Table 2 above (Construction Permit C12,294). The emission factors listed above (from AP-42 1.3 & 1.4) have been approved by the Division and shall be used to calculate emissions from the boiler, as follows:

Monthly emissions of each pollutant shall be calculated by the end of the subsequent month using the above emission factors (EF) and the monthly fuel consumption in the equation below:

$$\text{lb/mo} = [\text{EF (lbs/MMscf)} \times \text{Monthly Fuel Use (MMscf/mo)}] + [\text{EF (lbs/Mgal)} \times \text{Monthly Fuel Use (Mgal/mo)}]$$

A twelve-month rolling total of emissions will be maintained in order to monitor compliance with the annual emission limitation. By the end of each month, a new twelve-month total shall be calculated using the previous twelve months' data.

- 2.2 Total fuel consumption for the boiler shall not exceed the limitation shown in Summary Table 2 above. (Construction Permit C12,294). A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data.

The terms and conditions of this permit are based on the boiler burning natural gas and No. 2 distillate oil.

The heat content of the fuel shall be the average heat content of the fuel as monitored by the fuel monitoring plan required in Condition 2.3 of this permit, or the fuel vendor receipts.

- 2.3 The permittee shall follow the most recent Division-approved fuel oil monitoring plan. The plan shall be revised upon request of the Division, and may be revised upon request by the permittee. Revisions to these plans are subject to Division approval.

The heat content of the fuel used for the compliance calculations shall be the most recent value from the fuel testing program or the vendor receipts.

- 2.4 Particulate Matter (PM) emissions from the boiler shall not exceed the limitation calculated by use of the following equation: $PE = 0.5(FI)^{-0.26}$ (Reference: Regulation No. 1, §III.A.1.b), where PE = Particulate Emissions in pounds per million Btu heat input and FI = Fuel Input in Million Btu (MMBtu) per hour (Hr).

In the absence of credible evidence to the contrary, compliance with the emission standard for natural gas combustion and No. 2 fuel oil combustion may be demonstrated by maintaining a record of a calculation demonstrating the combination of the emission factor and fuel heat content precludes non-compliance. A copy of the calculation shall be made available for Division review upon request.

- 2.5 Sulfur Dioxide (SO₂) emissions from the boiler shall not exceed 0.8 pounds of SO₂ per million BTU of oil heat input (Colorado Regulation No. 1, Section VI.B.4.b(i)).

Compliance with the standard for natural gas and No. 2 fuel oil may be monitored by maintaining a record of a one-time demonstration by calculation. A copy of the calculation shall be made available for Division review upon request.

- 2.6 Opacity

- 2.6.1 Except as provided in Condition 2.6.2 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. (Colorado Regulation No. 1, II.A.1).

2.6.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

2.6.3 Startup - While a unit is in the startup mode, one Method 9 opacity observation shall be performed within 60 minutes of ignition (ignition Method 9 opacity observation) of the primary fuel (except for when the primary fuel is solely pipeline quality natural gas) for the operating mode. If a hot start up of a boiler is initiated within one (1) hour of a boiler trip, then a Method 9 opacity observation within 60 minutes of the hot boiler start up is not required. If the ignition opacity observation cannot be performed during conditions suitable for properly performing a valid Method 9 opacity observation, a Method 9 opacity observation shall be required during the calendar day after the calendar day of completion of the startup mode if the boiler remains in operation. If the startup mode is initiated and completed the same calendar day during conditions suitable for properly performing a valid Method 9 opacity observation, only the ignition Method 9 opacity observation is required.

If the entire duration of startup, operation and shutdown of the boiler takes place in less than eight (8) consecutive hours during conditions not suitable for performing a valid Method 9 observation, a Method 9 observation is not required. The boiler does not have to be kept in operation for the sole purpose of performing a Method 9 opacity observation. Records of the operation shall be maintained. The records shall include the dates of the test, the startup and shutdown times, copies of the Method 9 observations, or explanations of why a Method 9 observation was not performed. The records shall be made available to the Division for review upon request.

2.6.4 Other Conditions – Method 9 opacity observations shall be required to be made for each calendar day while fire building, cleaning of fire boxes, soot blowing, process modification or adjustment of control equipment. A primary Method 9 opacity observation shall be performed within 60 minutes of the commencement of any of these conditions. If the primary Method 9 opacity observation can not be performed during conditions suitable for properly performing a valid Method 9 opacity observation, a Method 9 opacity observation shall be required the next calendar day after the calendar day of commencement of the subject condition, however the boiler does not have to be kept in operation for the sole purpose of performing a Method 9 opacity observation. If any condition is initiated and completed during the same calendar day during conditions suitable for properly performing a valid Method 9 opacity observation, only the primary observation is required.

If the boiler is being operated for a routine operational testing exercise, and the entire exercise of the boiler takes place in less than eight (8) consecutive hours, no Method 9 opacity observations are required under this Condition 2.6.4.

- 2.6.5 Opacity Observations - A certified observer shall perform an EPA Reference Method 9 opacity observation. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 opacity observation is taken that shows an exceedance of the opacity limit until a Method 9 opacity observation is taken that shows that the opacity is less than the opacity limit.
- 2.6.6 Opacity Records - All Method 9 opacity observations shall be performed by an observer with a current and valid certification. A clear and readable copy of the observer's certificate shall be retained with the copies of the observations. The record for each opacity observation performed under this Condition 2.6 shall clearly and plainly identify whether the observation recorded is for a stated special condition or during routine operation. All Method 9 opacity observations shall be kept on file and made available for Division review upon request.
- 2.6.7 Operating with Fuel Oil Only - When using fuel oil a burn period is defined as any period of time from four (4) to seven (7) consecutive calendar days of burning fuel oil. No two successive Method 9 opacity observations shall be less than three (3) calendar days apart. A burn period Method 9 opacity observation shall not be required when fuel oil is burned for a period of time which is less than four (4) consecutive calendar days.
- 2.6.8 Co-firing of Fuels - If the contemporaneous firing of natural gas and fuel oil in a unit exceeds 8 hours in any consecutive 24 hour period, a Method 9 opacity observation shall be required for each calendar day of contemporaneous co-firing. When the contemporaneous firing of natural gas and fuel oil exceeds 4 consecutive hours a record shall be kept of the total length of time of contemporaneous burning and the amount of each respective fuel consumed during that time.
- 2.6.9 Operating with Natural Gas only - In the absence of credible evidence to the contrary, compliance with the opacity limit shall be presumed whenever natural gas is the only fuel being used.
- 2.7 **[Federal-Only]** This boiler is subject to the requirements in 40 CFR Part 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.
- As of the date of revised permit issuance [April 1, 2013], the requirements in 40 CFR Part 63 Subpart DDDDD, as published on March 21, 2011, have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division adopts these requirements, they will become state-enforceable.
- 2.7.1 The source must comply with the provisions of Subpart DDDDD by no later than January 31, 2016. (§63.7495(b))

- 2.7.2 This unit is considered a limited-use boiler. To maintain this status, the unit has a federally enforceable average annual capacity factor of no more than 10 percent, as required by the fuel consumption limitation in Condition 2.2. The source must keep a copy of this operating permit and the fuel use records for the days the boiler was operating. (§§63.7500(c), 63.7525(k), and 63.7555(3))
- 2.7.3 As a limited-use boiler, the unit is not subject to the emission limits in Tables 1 and 2 or 11 through 13 to Subpart DDDDD, the annual tune-up, or the energy assessment requirements in Table 3 to Subpart DDDDD, or the operating limits in Table 4 to Subpart DDDDD. (§63.7575)
- 2.7.4 This boiler must complete a tune-up every 5 years as follows. (Table 3 to Subpart DDDDD, Item 3)
- 2.7.4.1 If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. (§63.7540(a)(13))
- 2.7.4.2 As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The burner inspection may be delayed until the next scheduled or unscheduled unit shutdown, but an inspection of each burner must occur at least once every 72 months. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment (§§63.7540(a)(10)(i) and §63.7540(a)(12))
- 2.7.4.3 Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (§63.7540(a)(10)(ii))
- 2.7.4.4 Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the source may delay the inspection until the next scheduled unit shutdown). (§63.7540(a)(10)(iii))
- 2.7.4.5 Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. (§63.7540(a)(10)(iv))
- 2.7.4.6 Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (§63.7540(a)(10)(v))
- 2.7.4.7 Maintain on-site and submit, if requested by the EPA, an annual report containing the following information. (§63.7540(a)(10)(vi))

- a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; (§63.7540(a)(10)(vi)(A))
 - b. A description of any corrective actions taken as a part of the tune-up; and (§63.7540(a)(10)(vi)(B))
 - c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. (§63.7540(a)(10)(vi)(C))
- 2.7.5 The source must submit a compliance report every 5 years. (§63.7550(b))
- 2.7.5.1 The first compliance report must cover the period beginning on the compliance date that is specified in Condition 2.7.1 and ending on July 31 or January 31, whichever date is the first date that occurs at least 5 years after the compliance date. (§63.7550(b)(1))
 - 2.7.5.2 The first compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified in Condition 2.7.1. The first 5- year compliance report must be postmarked or submitted no later than January 31. (§63.7550(b)(2))
 - 2.7.5.3 Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. (§63.7550(b)(3))
 - 2.7.5.4 Each subsequent compliance report must be postmarked or submitted no later than January 31. (§63.7550(b)(4))
- 2.7.6 The compliance report must contain the following information: (§63.7550(c)(5))
- 2.7.6.1 Company and Facility name and address. (§63.7550(c)(5)(i))
 - 2.7.6.2 Process unit information, emissions limitations, and operating parameter limitations. (§63.7550(c)(5)(ii))
 - 2.7.6.3 Date of report and beginning and ending dates of the reporting period. (§63.7550(c)(5)(iii))
 - 2.7.6.4 The total operating time during the reporting period. (§63.7550(c)(5)(iv))
 - 2.7.6.5 Include the date of the most recent tune-up. Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. (§63.7550(c)(5)(xiv))
- 2.7.7 The compliance reports required by Condition 2.7.6 must be submitted electronically using CEDRI that is accessed through the EPA's Central Data Exchange

(CDX)(www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due the report must be submitted to the EPA at the appropriate address listed in §63.13. At the discretion of the EPA, the source must also submit these reports, to the EPA in the format specified by the EPA. (§63.7550(h)(3))

3. P202 – Coal Handling

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor (uncontrolled) | | Monitoring | |
|----------------------------------|-------------------------|---|----------------------|---|--------------------|--------------------------------|-------------------|
| | | Short Term | Long Term | | | Method | Interval |
| PM | 3.1 | | 8.8 ton/yr | Coal (as received) per transfer | 0.006 lb/ton | Record keeping and calculation | Monthly |
| | | | | Coal (crushed) per transfer | 0.012 lb/ton | | |
| | | | | Coal crushed | 0.160 lb/ton | | |
| | | | 46.4 ton/yr fugitive | Coal stockpile (fugitive) | 5.832 lb/acre-hour | | |
| PM ₁₀ | | | 7.0 ton/yr | Coal (as received) per transfer | 0.003 lb/ton | | |
| | | | | Coal (crushed) per transfer | 0.006 lb/ton | | |
| | | | | Coal Crushed | 0.080 lb/ton | | |
| | | | 23.2 ton/yr fugitive | Coal stockpile fugitive | 2.916 lb/acre-hour | | |
| Coal Handled, Stored & Processed | 3.2 | 1,100,000 ton/yr | | | | | |
| Coal Stockpiles | | 17 acres at any time | | | | | |
| NSPS Subpart Y | 3.3 | Less than 20% opacity | | | | | |
| Opacity – Applies to all units | 3.4 | Not to Exceed 20% | | | | Visual Observation & Method 9 | See Condition 3.4 |
| | | For certain operational activities – Not to Exceed 30% | | | | | |
| Fugitive PM Control Plan | 3.5 | Wet dust suppression Covered conveyors Telescoping chute Chemical binders & watering | | | | | |

3.1 Total Particulate Matter (PM), Particulate Matter<10 µm (PM₁₀), Fugitive PM, and Fugitive PM₁₀ emissions from these activities shall not exceed the limitations stated in Summary Table 3

above (Construction Permit 12EP324). The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the activities.

Monthly emissions of each pollutant shall be calculated by the end of the subsequent month using the above emission factors and the monthly coal throughput.

A twelve-month rolling total of emissions will be maintained in order to monitor compliance with the annual emission limitation. By the end of each month, a new twelve-month total shall be calculated using the previous twelve months' data. Records of the calculations and compliance determinations shall be maintained and made available for Division review upon request.

3.2 The coal handled, stored and processed shall not exceed the limitations shown in Summary Table 3 above. (Construction Permit 12EP324). The coal throughput limit shall be monitored monthly by the use of weighing the belt conveyor supplying the coal to the boiler storage bunkers. A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data.

3.3 All coal processing, conveying and storage sources following the coal stockpile (starting with the reclaim conveyor to the coal crusher) are subject to the New Source Performance Standards requirements of Regulation No. 6, Part A, Subpart Y, Standards of Performance for Coal Preparation Plants, including, but not limited to, the following:

3.3.1 PM emissions shall not exhibit 20 percent opacity or greater (§60.254(a)).

In addition, the following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, apply.

- a. At all times, including periods of start-up, shutdown, and malfunction, the facility and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A. General Provisions from 40 CFR 60.11)
- b. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- c. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

3.4 Opacity

3.4.1 Except as provided in Condition 3.4.2 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. (Colorado Regulation No. 1, II.A.1).

3.4.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

3.4.3 Daily non-Method 9 observations for visible emissions shall be made on all coal handling emission sources. When visible emissions are observed to persist for more than six (6) minutes, a Method 9 opacity observation of the emissions shall be required. Additional Method 9 observations shall be performed when such observation indicates an exceedance of the opacity limit. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 opacity observation is taken that shows an exceedance of the opacity limit until a Method 9 opacity observation is taken that shows that the opacity is less than the opacity limit.

3.4.4 All Method 9 opacity observations shall be performed by a certified observer. A clear and readable copy of the observer's certificate and any opacity observations shall be kept on file and made available to the Division for review upon request.

3.4.5 If no Method 9 opacity observations are needed during 12 calendar months, the visual observation monitoring frequency may be relaxed to once per calendar week. If during the weekly monitoring frequency, any Method 9 opacity observations identify non-compliance, the visual observation frequency shall immediately revert back to the daily frequency. If two calendar months in any calendar year require Method 9 opacity observations, the observation frequency shall revert back to a daily frequency immediately following the second month requiring a Method 9 opacity observation. Issuance of a renewal permit by itself will not require a change to the observation frequency

3.5 The permittee shall employ such control measures and operating procedures as are necessary to minimize visible particulate emissions into the atmosphere. The following measures were established by the fugitive particulate emissions control program of Construction Permit 12EP324.

3.5.1 A wet dust suppression system shall be used for railroad car unloading.

3.5.2 Above ground conveyors to and from the transfer building must be covered.

- 3.5.3 Loadout to storage pile must be by telescoping chute.
- 3.5.4 Emissions from coal storage piles shall be effectively controlled by application of chemical binders and by watering, if need be.

4. P201 – Flyash Handling

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor (uncontrolled) | Monitoring | |
|--------------------------------|-------------------------|--|---------------|---|--------------------------------|-------------------|
| | | Short Term | Long Term | | Method | Interval |
| PM | 4.1 | | 4.0 ton/yr | 1.6 lb/ton of flyash handled | Record keeping and calculation | Monthly |
| PM ₁₀ | | | 3.2 ton/yr | 0.8 lb/ton of flyash handled | | |
| Flyash Handling | 4.2 | | 98,700 ton/yr | | | |
| Opacity – Applies to all units | 4.3 | Not to Exceed 20% | | | Visual Observation & Method 9 | See Condition 4.3 |
| | | For certain operational activities – Not to Exceed 30% | | | | |

- 4.1 Total Particulate Matter (PM), Particulate Matter<10 µm (PM₁₀) emissions from these activities shall not exceed the limitations stated in Summary Table 4 above (Construction Permit 12EP622). The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the activities.

Monthly emissions of each pollutant shall be calculated by the end of the subsequent month using the above emission factors and the monthly flyash handling, accounting for the appropriate emission reduction achieved by the emission controls.

A twelve-month rolling total of emissions will be maintained in order to monitor compliance with the annual emission limitation. By the end of each month, a new twelve-month total shall be calculated using the previous twelve months' data. Records of the calculations and compliance determinations shall be maintained and made available for Division review upon request.

- 4.2 The flyash handled shall not exceed the limitations shown in Summary Table 4 above. (Construction Permit 12EP622). The flyash handling limit shall be monitored monthly by weighing the transport trucks before and after loading and logging the load weights. A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data.

4.3 Opacity

4.3.1 Except as provided in Condition 4.3.2 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. (Colorado Regulation No. 1, II.A.1).

4.3.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30% opacity for a period or

periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

- 4.3.3 CSU shall employ such control measures and operating procedures as are necessary to minimize visible particulate emissions into the atmosphere. At least once each week the ash handling system is operated, observations for non-Method 9 visible emissions from the blower vents, storage silo vent and the silo unloading area shall be made.
- 4.3.4 If non-Method 9 visible emissions are observed, the source of the visible emissions shall be investigated, corrections made and the problem and the correction(s) noted in a record. If the visible emissions persist for more than six (6) consecutive minutes after the correction(s) has been made, a Method 9 opacity observation shall be performed by a certified observer. A clear and readable copy of the observer's certificate and any opacity observations shall be kept on file and made available to the Division for review upon request.
- 4.3.5 Additional Method 9 opacity observations shall be performed when such observation indicates an exceedance of the opacity limit. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 opacity observation is taken that shows an exceedance of the opacity limit until a Method 9 opacity observation is taken that shows that the opacity is less than the opacity limit.
- 4.3.6 If no Method 9 opacity observations are needed during 12 calendar months, the visual observation monitoring frequency may be relaxed to once per calendar month. If during the monthly monitoring frequency, any Method 9 opacity observations identify non-compliance, the visual observation frequency shall immediately revert back to the weekly frequency. If two calendar months in any calendar year require Method 9 opacity observations, the observation frequency shall revert back to a weekly frequency immediately following the second month requiring a Method 9 opacity observation. Issuance of a renewal permit by itself will not require a change to the observation frequency.

5. P205 – Cooling Tower

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|---------------------------------|-------------------------|--|------------------------------------|--|---------------------------------------|---------------|
| | | Short Term | Long Term | | Method | Interval |
| PM | 5.1 | | 7.24 ton/yr | See equation in 5.1 below | Record keeping and calculation | Monthly |
| PM ₁₀ | | | 1.09 ton/yr | | | |
| VOC | | | 1.22 ton/yr | 0.0527 lb/MMgallons circulated (as CHCl ₃) | | |
| Water Circulated | 5.2 | | 4.63 x 10 ¹⁰ gallons/yr | | | |
| Total dissolved solids analysis | 5.3 | | | | EPA or other Division-approved method | Semi-annually |
| Opacity | 5.4 | Not to Exceed 20% | | | See Condition 5.4 | |
| | | For certain operational activities – Not to Exceed 30% | | | | |

- 5.1 Total Particulate Matter (PM), Particulate Matter<10 µm (PM₁₀), and Volatile Organic Compound (VOC) emissions from the cooling tower shall not exceed the limitations stated in Summary Table 5 above (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Section I.A.7 and Part C, Section III.B.7, based on maximum rate of 4.63 x 10¹⁰ gallons per year identified in an APEN filed by the source dated 04/19/2000). The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the activities, as follows:

Monthly emissions of each pollutant shall be calculated by the end of the subsequent month using the above emission factors and the monthly water circulation rate.

The following equation shall be used to estimate the particulate emissions:

$$PM_{10} = 0.15 \times PM$$

$$PM \text{ (tons/month)} = Q \times d \times \text{drift} \times 31.3\% \times \text{total dissolved solids concentration} \times \text{ton/2000 pounds}$$

Where: Q = water circulated, million gallons per month

d = density of water, 8.34 pounds per gallon

drift = gallons of drift/gallon of circulated flow, From manufacturer = 0.00001

31.3% = drift dispersed (per EPA-600/7/79-251a, November 1979, "Effects of Pathogenic and Toxic Materials Transported Via Cooling Device Drift – Volume 1 – Technical Report", Page 63)

Total dissolved solids concentration (TDS) = total dissolved solids concentration, in ppm (lbs solids/million lbs water)

$$\text{Therefore: } PM \text{ (tons/month)} = Q \text{ (million gallons per month)} \times TDS \text{ (ppm)} \times 1.305 \times 10^{-8}$$

A twelve-month rolling total of emissions will be maintained in order to monitor compliance with the annual emission limitation. By the end of each month, a new twelve-month total shall be calculated using the previous twelve months' data. Records of the calculations and compliance determinations shall be maintained and made available for Division review upon request.

- 5.2 Water circulation shall not exceed the limitations shown in Summary Table 5 above. (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Section I.A.7 and Part C, Section III.B.7, based on maximum rate of 4.63×10^{10} gallons per year identified in an APEN filed by the source dated 04/19/2000). The water circulation shall be monitored monthly. A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data.
- 5.3 Circulating water shall be monitored for Total Dissolved Solids (TDS) or conductivity on a semi-annual basis. TDS shall be measured by EPA or other Division approved test methods or by use of a standard conductivity or TDS probe. Conductivity shall be converted to TDS by use of a 0.75 conversion factor ($0.75 \times \text{conductivity} = \text{TDS}$).
- 5.4 Opacity
- 5.4.1 Except as provided in Condition 5.4.2 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. (Colorado Regulation No. 1, II.A.1).
- 5.4.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).
- 5.4.3 In the absence of credible evidence to the contrary, compliance with the opacity standard shall be presumed, provided the drift eliminators on the tower are maintained and operated in accordance with the manufacturer's requirements and good engineering practices.

6. Ash Disposal

These permit conditions apply to the haul roads to the disposal site and the site disposal operations.

- 6.1 Wetting Down, including Pre-Watering: A daily check of the ash disposal site shall be conducted to monitor whether fugitive dust is being generated. If fugitive dust is being generated, water shall be applied, or other dust control techniques will be promptly instigated. (Construction Permit C-12,061(FD))
- 6.2 Soil Treatment: Dust palliatives and chemical stabilizer may be used as an alternative to watering following cut and fill operations with the following conditions (Construction Permit C-12,061(FD)):
 - a. Materials used shall be approved by the Division,
 - b. Materials shall be applied according to manufacturer's recommendations,
 - c. Materials shall be reapplied frequently enough to prevent visible transport of dust to adjacent properties' improved streets.
- 6.3 Deposit of Dirt and Mud on Improved Streets: Deposit of dirt and mud on improved streets and roads must be prevented or removed. (Construction Permit C-12,061(FD))
- 6.4 Disturbing Less Topsoil and Reclaiming As Soon As Possible: All disturbed areas, except roadways, shall be seeded and watered according to the local Soil Conservation Service Office recommendations dated May 4, 1979, and which are made a condition of this permit. (Construction Permit C-12,061(FD))
- 6.5 Unpaved Roads (Construction Permit C-12,061(FD), as modified under the provisions of Section I, Condition 1.3):
 - a. Road speed on unpaved roadways on-site shall be limited to a maximum of 15 miles per hour. (Construction Permit C-12,061(FD), as modified under the provisions of Section II, Condition 1.3) The speed limit shall be appropriately posted and enforced by supervisory personnel.
 - b. Roads shall be watered as often as necessary to control fugitive emissions.
- 6.6 Disposal: Wastes shall be ponded or trenched, terraced and covered. (Construction Permit C-12,061(FD))
- 6.7 Covered Areas: All final cover areas shall be terraced and revegetated. (Construction Permit C-12,061(FD))
- 6.8 Records: Any actions required to control a fugitive dust problem identified by the daily observations required by Condition 6.1 above shall be recorded and made available for Division review upon request.

7. S003 & S004: Two natural gas fired combustion turbines, 330 MMBtu/hr each

Unless Otherwise Specified, Limits are for Both Turbines Combined

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|-------------------|-------------------------|---|-------------------------------------|----------------------------|--|---|
| | | Short Term | Long Term | | Method | Interval |
| BACT Requirements | 7.1 | Dry Low NO _x Combustion Systems Pipeline Quality Natural Gas Good Combustion Practices | | | See Condition 7.1 | |
| PM | 7.2 | | 20.0 tons/yr | 12.3191 lb/MMscf | Recordkeeping and Calculation | Monthly |
| | | 0.5(FI) ^{-0.26} lb/MMBtu | | | Fuel Restriction | When Burning Pipeline Quality Natural Gas |
| PM ₁₀ | | | 20.0 tons/yr including condensibles | 12.3191 lb/MMscf | Recordkeeping and Calculation | Monthly |
| VOC | 7.3 | | 16.0 tons/yr | 9.8553 lb/MMscf | | |
| SO ₂ | 7.4 | | 1.0 tons/yr | | As specified in 40 CFR Part 75, Appendix D | When Burning Pipeline Quality Natural Gas |
| | | For Each Turbine: 150 ppmvd @ 15% O ₂ OR Use of Fuel Which Contains Less than 0.8 Weight % Sulfur | | | Fuel Restriction | |
| | | For Each Turbine: 0.35 lbs/mmBtu, on a 3-hour rolling average | | | | |
| NO _x | 7.5 | For Each Turbine: 15 ppmvd @ 15% O ₂ on a 1-hr average, at operating loads at and above 70% (23 MW) 65 ppmvd @ 15% O ₂ on a 1-hr average, at operating loads below 70% (23 MW) 100 ppmvd @ 15% O ₂ on a 1-hr average, during combustion tuning and testing | | | Continuous Emission Monitoring System | Continuously |
| | | | 160.2 tons/yr | | | Monthly |

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor | Monitoring | |
|--|-------------------------|--|------------------------------|----------------------------|--|---|
| | | Short Term | Long Term | | Method | Interval |
| CO | 7.6 | | 86.0 tons/yr | | Continuous Emission Monitoring System | Monthly |
| Fuel Use – For Both Turbines Combined | 7.7 | | 3,247 MMscf/yr | | Recordkeeping | |
| Hours of Operation – For Both Turbines Combined | 7.8 | | 8,660 turbine-hours per year | | | |
| Continuous Emission Monitoring System | 7.9 | | | | See Condition 7.9 | |
| NSPS General Provisions | 7.10 | | | | As Required by NSPS General Provisions | |
| Operating & Maintenance Plan | 7.11 | | | | See Condition 7.11 | |
| Natural Gas Heat Content | 7.12 | | | | See Condition 7.12 | |
| Sulfur Content of Fuel | 7.13 | | | | See Condition 7.13 | |
| Opacity | 7.14 | [State-Only] Not to Exceed 20% | | | Fuel restriction | When Burning Pipeline Quality Natural Gas |
| | | Not to Exceed 20% Except as Provided for Below | | | | |
| | | For Certain Operational Activities - Not to Exceed 30% | | | | |
| Acid Rain Requirements | 7.15 | See Section III of this Permit | | | Certification | Annually |

7.1 The **two combustion turbines** are subject to the requirements of the Prevention of Significant Deterioration (PSD) Program.

7.1.1 Best Available Control Technology (BACT) shall be applied for control of Nitrogen Oxides (NO_x), and Particulate Matter<10 µm (PM₁₀). BACT has been determined as follows:

- 7.1.1.1 BACT for NO_x has been determined to be Dry Low NO_x (DLN) Combustion Systems with emission limits as identified in Condition 7.5.1.1. Operation below 70% load (23 MW) shall be minimized. (Colorado Construction Permit 94EP132, as modified under the provisions of Section I, Condition 1.3).
- 7.1.1.2 BACT for PM₁₀ has been determined to be use of pipeline quality natural gas and application of “good combustion practices” as detailed in the Division-approved operation and maintenance plan referenced in Condition 7.11 below (Colorado Construction Permit 94EP132).

7.2 PM and PM₁₀ emissions are subject to the following requirements:

- 7.2.1 **Total** Annual emissions of PM and PM₁₀ **from both turbines together** shall not exceed the limitations outlined in Summary Table 7 above (Colorado Construction Permit 94EP132). Monthly emissions from each turbine shall be calculated by the end of the subsequent month using the emission factors in Summary Table 7 above in the following equation:

$$\text{tons/month} = \frac{[\text{EF (lbs/MMscf)} \times \text{Fuel Use (MMscf/mo)}]}{2000 \text{ lbs/ton}}$$

Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 7.2.2 Particulate Matter (PM) emissions from each turbine shall not exceed the limitation calculated by use of the following equation: $PE = 0.5(FI)^{-0.26}$ (Reference: Regulation No. 1, §III.A.1.b), where PE = Particulate Emissions in pounds per million Btu heat input and FI = Fuel Input in Million Btu (MMBtu) per hour (Hr).

In the absence of credible evidence to the contrary, compliance with the emission standard for natural gas combustion may be demonstrated by maintaining a record of a calculation demonstrating the combination of the emission factor and fuel heat content precludes non-compliance. A copy of the calculation shall be made available for Division review upon request.

- 7.3 **Total** Annual emissions of VOC **from both turbines together** shall not exceed the limitations outlined in Summary Table 7 above (Colorado Construction Permit 94EP132). Monthly emissions from each turbine shall be calculated by the end of the subsequent month using the emission factors in Summary Table 7 above in the following equation:

$$\text{tons/month} = \frac{[\text{EF (lbs/MMscf)} \times \text{Fuel Use (MMscf/mo)}]}{2000 \text{ lbs/ton}}$$

Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

7.4 Sulfur Dioxide (SO₂) emissions shall not exceed the following limitations:

- 7.4.1 **Total** annual Sulfur Dioxide (SO₂) emissions **from both turbines together** shall not exceed the limitations outlined in Summary Table 7 above (Colorado Construction Permit 94EP132). Compliance with the annual SO₂ emission limitations shall be monitored using the monitoring method specified in 40 CFR Part 75 Appendix D.

Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 7.4.2 **Each turbine** shall meet the following requirements (40 CFR Part 60 Subpart GG, as adopted by reference in Colorado Regulation No. 6, Part A):

7.4.2.1 Sulfur Dioxide (SO₂) emissions from each turbine shall not exceed 150 ppmvd at 15% O₂; **OR**

7.4.2.2 No fuel, which contains sulfur in excess of 0.8 percent by weight, shall be used in these combustion turbines (§ 60.333(a) & (b)).

In the absence of credible evidence to the contrary, compliance with the above requirements is presumed when pipeline quality natural gas is used as fuel. The natural gas used as fuel shall meet the requirements in Condition 7.13.

- 7.4.3 Sulfur Dioxide (SO₂) emissions **from each turbine** shall not exceed 0.35 lbs/mmBtu, on a 3-hr rolling average (Colorado Regulation No. 1, Section VI.B.4.c.(ii) and VI.B.2). In the absence of credible evidence to the contrary, compliance with the SO₂ limitations is presumed since only pipeline quality natural gas is permitted to be used as fuel in these turbines.

7.5 Emissions of Nitrogen Oxides (NO_x) shall not exceed the following limitations:

- 7.5.1 BACT emission limits are as follows:

7.5.1.1 Nitrogen Oxide (NO_x) emissions **from each turbine** shall not exceed the following limitations (Colorado Construction Permit 94EP132, as modified under the provisions of Section I, Condition 1.3):

- a. Emissions of NO_x shall not exceed 15 ppmvd at 15% O₂, on a 1-hour average, at operating loads at and above 70% (23 MW).
- b. Emissions of NO_x shall not exceed 65 ppmvd at 15% O₂, on a 1-hour average, at operating loads below 70% (23 MW).
- c. Emissions of NO_x shall not exceed 100 ppmvd at 15% O₂, on a 1-hour average, during periods of combustion tuning and testing. Combustion tuning and testing operations shall not exceed 90 hours per year for both turbines combined. All combustion tuning and testing must be conducted during daylight hours. Records of

the time and number of hours each turbine undergoes combustion tuning and testing shall be recorded and maintained and made available to the Division upon request.

- d. Operation below 70% load (23 MW) shall be minimized.

Compliance with the NO_x BACT limitations shall be monitored as follows:

7.5.1.2 Compliance with the NO_x BACT emission limitations in Conditions 7.5.1.1.a through 7.5.1.1.c shall be monitored using the continuous emission monitoring systems (CEMS) required by Condition 7.9.

7.5.2 **Total** annual emissions of NO_x **from both turbines together** shall not exceed the limitations outlined in Summary Table 7 above (Colorado Construction Permit 94EP132). Monthly emissions from each turbine shall be determined using the continuous emission monitoring system required by Condition 7.9. Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months total.

7.6 **Total** annual emissions of Carbon Monoxide (CO) **from both turbines together** shall not exceed the limitations outlined in Summary Table 7 above (Colorado Construction Permit 94EP132). Monthly emissions from each turbine shall be determined using the continuous emission monitoring system required by Condition 7.9. Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total of emissions to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months total.

7.7 Total natural gas fuel consumption for the turbines shall not exceed the limitation shown in Summary Table 7 above. (Construction Permit 94EP132 based on a fuel heat content of 880 Btu/scf). A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data. The calculations and compliance determinations shall be kept on file and made available for Division review upon request.

The terms and conditions of this permit are based on the turbines firing natural gas only. The use of any other fuel may require the permit to be re-opened prior to any use of the fuel.

7.8 Total operating hours for the turbines shall not exceed the limitation shown in Summary Table 7 above. (Construction Permit 94EP132). A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data. The calculations and compliance determinations shall be kept on file and made available for Division review upon request.

7.9 **Each** of the turbine exhaust stacks shall be equipped with a continuous emission monitoring system to measure and record the following (Construction Permit 94EP132):

- 7.9.1 Hourly concentration of Nitrogen Oxides in the turbine exhaust, ppmvd, corrected to 15 % Oxygen;
- 7.9.2 Emissions of Oxides of Nitrogen; pounds per hour, tons per month, tons per rolling twelve month period;
- 7.9.3 Hourly concentration of Carbon Monoxide in the turbine exhaust, ppmvd, corrected to 15 % Oxygen;
- 7.9.4 Emissions of Carbon Monoxide, pounds per hour, tons per month, tons per rolling twelve month period;
- 7.9.5 Concentration of Oxygen, percent hourly average;
- 7.9.6 Load, in MW, at which turbine is operating.

The quality assurance procedures of 40 CFR Part 60 Appendix F or 40 CFR Part 75 shall be followed for the CEMs. The CEMS shall meet the requirements in Condition 9 of this permit.

- 7.10 Regulation No. 6, Part A, Subpart A, General Provisions applies as follows (Construction Permit 94EP132):
 - 7.10.1 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere. (40 CFR Part 60 Subpart A § 60.12, as adopted by reference in Colorado Regulation No. 6, Part A)
 - 7.10.2 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (40 CFR Subpart A § 60.11(d), as adopted by Regulation No. 6, Part A).
 - 7.10.3 Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.
 - 7.10.4 Excess Emission and Monitoring System Performance Reports shall be submitted as required under § 60.7.
 - 7.10.5 Continuous monitoring systems shall be maintained and operated as required under § 60.13.

- 7.11 The permittee shall follow the approved operating and maintenance plan for all control equipment and control practices, and the approved record keeping format, that will demonstrate how the permittee will maintain compliance on an ongoing basis with the requirements of this permit (Construction Permit 94EP132). A copy of the approved plan shall be maintained on-site and made available for Division review upon request.
- 7.12 The heat content of the natural gas may be obtained from purchasing contract specifications, vendor receipts or by fuel sampling and testing. Copies of the receipts or a copy of specifications shall be kept with the compliance determination records and made available for Division review upon request. If the natural gas heat content is to be obtained from sampling and testing by the CSU, CSU shall prepare and submit for Division approval a natural gas sampling and testing plan within six (6) calendar months of the issuance date of this Operating Permit. The values used for the compliance determinations shall be the values from the most recent receipt, contract specifications or test results.
- 7.13 The permittee shall maintain records demonstrating that the natural gas burned meets the definition of pipeline quality natural gas as defined in 40 CFR Part 72. Specifically, the permittee shall demonstrate that the natural gas burned has a total sulfur content less than 0.5 grains/100 SCF. The demonstration shall be made using any of the methods identified in 40 CFR Part 75 Appendix D, Section 2.3.1.4. These records shall be made available to the Division upon request. The most recent Division-approved natural gas monitoring plan shall be followed. This plan shall be revised upon Division request, and may be revised upon request by the permittee. Revisions to these plans are subject to Division approval.
- 7.14 The turbines are subject to the following opacity requirements:
- 7.14.1 **State-Only Requirement:** No owner or operator may discharge, or cause the discharge into the atmosphere of any particulate matter which is greater than 20% opacity (Colorado Regulation No. 6, Part B, Section II.C.3). This opacity standard applies to **each turbine**.
- This opacity standard applies at all times except during periods of startup, shutdown and malfunction (40 CFR Part 60 Subpart A § 60.11(c), as adopted by reference in Colorado Regulation No. 6, Part B, Section I.A).
- 7.14.2 Except as provided for in Condition 7.14.3 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). This opacity standard applies to **each turbine**.
- 7.14.3 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

In the absence of credible evidence to the contrary, each turbine shall be presumed to be in compliance with the above opacity requirements since only natural gas is permitted to be used as fuel.

- 7.15 These units are subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit. A copy of the annual compliance certification required by 40 CFR Part 72 § 72.90, shall be submitted to the Division as specified in Section III.4 of this permit.

8. S001 & S002 – Two (2) Combined Cycle Combustion Turbines with HRSG & duct burners;

Unless Otherwise Specified, Limits are for Both Turbines Combined

| Parameter | Permit Condition Number | Limitations Short Term Long Term | Compliance Emission Factor | Monitoring Method Interval | |
|-------------------|-------------------------|---|-------------------------------|--|---|
| BACT Requirements | 8.1 | Pipeline Quality Natural Gas Good Combustion Practices | | See Condition 8.1 | |
| NO _x | 8.2 | | | Continuous Emission Monitoring System | Monthly |
| | | For Each Combustion Turbine: 111 ppmvd at 15% O ₂ | | | Continuously |
| | | For Each Duct Burner: 1.6 lb/MWh on a 30-day rolling average | | | |
| CO | 8.3 | 25 ppmvd @ 15% O ₂ on a 1-hr average, except as provided for below. During Startup and Shutdown: 1210 ppmvd @ 15% O ₂ on a 1-hr average | | | |
| | | | | | Monthly |
| SO ₂ | 8.4 | For Each Combustion Turbine: 0.35 lb/mmBtu, on a 3-hr rolling average | | Fuel Restriction | When Burning Pipeline Quality Natural Gas |
| | | For Each Combustion Turbine: 150 ppmvd @ 15% O ₂ on a 1-hr average OR use of fuel which contains less than 0.8 | | | |
| | | For Each Duct Burner: 0.20 lb/mmBtu on a 30-day rolling average | | As specified in 40 CFR 75, Appendix D | |
| | | | | | |
| VOC | 8.5 | | 0.00035 lb/MMBtu | Recordkeeping & Calculation | Monthly |

| Parameter | Permit Condition Number | Limitations Short Term Long Term | | Compliance Emission Factor | Monitoring Method Interval | |
|--|-------------------------|---|---------------------|----------------------------|--|---|
| PM | 8.6 | For Each Combustion Turbine: 0.1 lbs/mmBtu, the average of three (3) 1-hr tests | | | Fuel Restriction | When Burning Pipeline Quality Natural Gas |
| | | For Each Combustion Turbine and Duct Burner Together: 0.1 lbs/mmBtu, the average of three (3) 1-hr tests | | | | |
| | | For Each Duct Burner: 0.03 lbs/mmBtu, the average of three (3) 2-hr tests | | | | |
| | | | 256.2 tons/yr | 0.0014 lb/MMBtu | Recordkeeping & Calculation | Monthly |
| PM ₁₀ | 8.7 | | 256.2 tons/yr | | | |
| Natural Gas Usage | 8.8 | | 33,600,000 mmBtu/yr | | Recordkeeping | Monthly |
| Sulfur Content of Natural Gas | 8.9 | | | | See Condition 8.9. | |
| Continuous Emission Monitoring System Requirements | 8.10 | | | | See Condition 8.10 | |
| Natural Gas Heat Content | 8.11 | | | | See Condition 8.11 | |
| NSPS General Provisions | 8.12 | | | | As Required by NSPS General Provisions | |
| Opacity | 8.13 | [State-only] Not to Exceed 20% | | | Fuel Restriction | When Burning Pipeline Quality Natural Gas |
| | 8.14 | Not to Exceed 20% Except as Provided for in 1.15 Below | | | | |
| | 8.15 | For Certain Operational Activities - Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes | | | | |
| NSPS Opacity Applies to Duct Burner Only | 8.16 | Not to Exceed 20% (6-minute average), Except for One Six Minute Average Not to Exceed 27% Per Hour | | | | |
| Acid Rain Requirements | 8.17 | See Section III of this Permit | | | Certification | Annually |

8.1 **These combustion turbines/HRSGs/duct burners** are subject to the requirements of the Prevention of Significant Deterioration (PSD) Program.

8.1.1 Best Available Control Technology (BACT) shall be applied for control of Carbon Monoxide (CO), and Particulate Matter (PM and PM₁₀). BACT has been determined as follows:

- 8.1.1.1 BACT for CO has been determined to be good combustion practices/monitoring systems capable of meeting the emission limitations in Condition 8.3.1 (Colorado Construction Permit 99EP0851).
- 8.1.1.2 BACT for PM and PM₁₀ has been determined to be use of pipeline quality natural gas and by application of good combustion control practices (Colorado Construction Permit 99EP0851).

8.2 Nitrogen Oxide (NO_x) emissions shall not exceed the following limitations:

- 8.2.1 Total Nitrogen Oxide (NO_x) emissions **from the combustion turbines/HRSG/duct burners** shall not exceed 632.6 tons/yr (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3). Compliance with this requirement shall be monitored using the Continuous Emission Monitoring System (CEMS) required by Condition 8.10.

A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 8.2.2 Nitrogen Oxide (NO_x) emissions **from each combustion turbine/HRSG/duct burner** shall not exceed the following limitations (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3. Reference: 40 CFR Part 60 Subpart GG, as adopted by reference in Colorado Regulation No. 6, Part A):

- a. Emissions of NO_x shall not exceed 0.0111 percent by volume, dry basis (111 ppmvd) at 15% O₂. (§ 60.332(a)(1)). Compliance with this requirement shall be monitored using the Continuous Emission Monitoring System (CEMS) required by Condition 8.10.
- b. Monitoring of the fuel nitrogen content is not required since pipeline quality natural gas will be the only fuel fired in the combustion turbines.

- 8.2.3 Nitrogen Oxide (NO_x) emissions **from each duct burner** shall not exceed 1.6 lb/MWh on a 30-day rolling average, except as provided under 40 CFR Part 60 Subpart Da §60.48Da(k) (40 CFR Part 60 Subpart Da §60.44Da(d)(1), as adopted by reference in Colorado Regulation No. 6, Part A). Compliance with this requirement shall be monitored using the Continuous Emission Monitoring System (CEMS) required by Condition 8.10.

8.3 Carbon Monoxide (CO) emissions shall not exceed the following limitations:

- 8.3.1 The BACT Carbon Monoxide (CO) emission limit **for each combustion turbine/HRSG/duct burner** is as follows (99EP0851, as modified under the provisions of Section I, Condition 1.3):

8.3.1.1 Except as provided for in Condition 8.3.1.2 below, emissions of CO shall not exceed 25 ppmvd at 15% O₂, on a 1-hour average.

8.3.1.2 During periods of startup and shutdown emissions of CO shall not exceed 1,210 ppmvd at 15% O₂, on a 1-hour average.

Compliance with these CO limitations shall be monitored using the Continuous Emission Monitoring System (CEMS) required by Condition 8.10.

“Startup” is defined as the period from the push of the start button until 20 minutes after combustion is switched to Mode 6.

“Shutdown” is defined as the period from leaving Mode 6 until the gas valve is closed.

8.3.2 Total Carbon Monoxide (CO) emissions **from the combustion turbines/HRSG/duct burners** shall not exceed 411.8 tons/yr (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3). Compliance with this requirement shall be monitored using the Continuous Emission Monitoring System (CEMS) required by Condition 9.

A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.

8.4 Sulfur Dioxide (SO₂) emissions shall not exceed the following limitations:

8.4.1 Sulfur Dioxide (SO₂) emissions **from each combustion turbine** shall not exceed 0.35 lbs/mmBtu, on a 3-hour rolling average (Colorado Regulation No. 1, Section VI.B.4.c.(ii) and VI.B.2). In the absence of credible evidence to the contrary, compliance with the sulfur dioxide limitation is presumed whenever pipeline quality natural gas is used as fuel in the turbines.

8.4.2 **Each combustion turbine** shall meet one of the following requirements:

8.4.2.1 Sulfur Dioxide (SO₂) emissions from each combustion turbine shall not exceed 150 ppmvd at 15% O₂ (Colorado Construction Permit 99EP0851)
OR

8.4.2.2 No fuel, which contains sulfur in excess of 0.8 percent by weight, shall be used in these combustion turbines (40 CFR Part 60, Subpart GG § 60.333(b), as adopted by reference in Colorado Regulation No. 6, Part A).

In the absence of credible evidence to the contrary, compliance with the above requirements is presumed when pipeline quality natural gas is used as fuel. The natural gas used as fuel shall meet the requirements in Condition 8.9.

8.4.3 Sulfur Dioxide (SO₂) emissions **from each duct burner** shall not exceed 0.20 lbs/mmBtu on a 30-day rolling average (40 CFR Part 60 Subpart Da §60.43Da(b)(2), as adopted by reference in Colorado Regulation No. 6, Part A). In the absence of credible evidence to the contrary, compliance with the sulfur dioxide limitations is presumed whenever pipeline quality natural gas is used as fuel in the duct burners.

8.4.4 Total Sulfur Dioxide (SO₂) emissions **from the combustion turbine/HRSG/duct burners** shall not exceed 10.1 tons/yr (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3). Compliance with the annual SO₂ emission limitations shall be monitored using the monitoring method specified in 40 CFR Part 75 Appendix D.

A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.

8.5 Volatile Organic Compound (VOC) emissions shall not exceed the following limitations:

8.5.1 Total Volatile Organic Compounds emissions **from the combustion turbine/HRSG/duct burners** shall not exceed 30.0 tons/yr (Colorado Construction Permit 99EP0851). Monthly emissions of VOC shall be calculated using the emission factors in summary table (from April 2003 stack test data) in the following equation:

$$\text{Tons/month} = \frac{[\text{EF (lbs/mmBtu)} \times \text{monthly heat input to turbine (mmBtu/mo)}]}{2000 \text{ lbs/ton}}$$

The monthly heat input to the turbine/HRSG/duct burner shall be determined as required by Condition 8.11. A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

8.6 Particulate Matter (PM) emissions shall not exceed the following limitations:

8.6.1 Particulate Matter (PM) emissions **from each combustion turbine** shall not exceed 0.1 lbs/mmBtu, the average of three (3) 1-hr tests (Colorado Regulation No. 1, Section III.A.1.c). In the absence of credible evidence to the contrary, compliance with the particulate matter limitation is presumed whenever pipeline quality natural gas is used as fuel in the turbines.

8.6.2 Particulate Matter (PM) emissions **from each duct burner** shall not exceed 0.11 lbs/mmBtu, the average of three (3) 1-hr tests (Colorado Regulation No. 1, Section III.A.1.b). In the absence of credible evidence to the contrary, compliance with the particulate matter limitation is presumed whenever pipeline quality natural gas is used as fuel in the turbines.

- 8.6.3 Particulate Matter (PM) emissions **from each combustion turbine and duct burner together** shall not exceed 0.10 lbs/mmBtu, the average of three (3) 1-hr tests (Colorado Regulation No. 1, Sections II.A.1.b, c and d). In the absence of credible evidence to the contrary, compliance with the particulate matter limitation is presumed whenever pipeline quality natural gas is used as fuel in the turbines.

Note that the numeric PM standards for combined cycle operation were determined using the design heat input for the turbines (1775 mmBtu/hr each) and duct burners (325 mmBtu each) in the following equation:

$$PE \text{ (turbine + duct burner)} = \frac{PE_T \times FI_T + PE_{DB} \times FI_{DB}}{FI_T + FI_{DB}}$$

Where

PE = particulate standard in lbs/mmBtu

$PE_{DB} = 0.5 \times (FI)^{-0.26}$ lbs/mmBtu

$PE_T = 0.1$ lbs/mmBtu

FI = fuel input in mmBtu/hr

- 8.6.4 Particulate Matter (PM) emissions **from each duct burner** shall not exceed 0.03 lbs/mmBtu, average of three (3) 2-hr tests (40 CFR Part 60 Subpart Da §60.42Da(a)(1), as adopted by reference in Colorado Regulation No. 6, Part A). In the absence of credible evidence to the contrary, compliance with the particulate matter limitation is presumed whenever pipeline quality natural gas is used as fuel in the turbines and duct burners.

- 8.6.5 Total Particulate Matter (PM) emissions **from the combustion turbines/HRSG/duct burners** shall not exceed 256.2 tons/yr (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3). Monthly emissions of PM shall be calculated using the emission factors in summary table (from April 2003 stack test data) in the following equation:

$$\text{Tons/month} = \frac{[EF \text{ (lbs/mmBtu)} \times \text{monthly heat input to turbine (mmBtu/mo)}]}{2000 \text{ lbs/ton}}$$

The monthly heat input to the turbine/HRSG/duct burner shall be determined as required by Condition 8.11. A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 8.7 Total Particulate Matter less than 10 microns (PM_{10}) emissions **from the combustion turbines/HRSG/duct burners** shall not exceed 256.2 tons/yr (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3).

Monthly emissions of PM_{10} shall be calculated using the emission factors in the following equation:

$$\text{Tons/month} = \frac{[EF \text{ (lbs/mmBtu)} \times \text{monthly heat input to turbine (mmBtu/mo)}]}{2000 \text{ lbs/ton}}$$

2000 lbs/ton

The monthly heat input to the turbine/duct burner shall be determined as required by Condition 8.11. A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitations. Each month a new twelve month total shall be calculated using the previous twelve months data. Compliance with the hourly limitation shall be monitored by dividing the monthly emissions by the number of hours operated each month.

- 8.8 Total pipeline quality natural gas consumption **for the combustion turbines/HRSG/duct burners** shall not exceed 33,600,000 mmBTU/yr (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3).

A twelve-month rolling total shall be maintained for demonstration of compliance with the annual limitation. By the end of each month a new twelve-month total shall be calculated using the previous twelve months' data. The calculations and compliance determinations shall be kept on file and made available for Division review upon request.

- 8.9 The permittee shall maintain records demonstrating that the natural gas burned has a total sulfur content less than 0.5 grains/100 SCF. Natural gas that meets this sulfur limitation is considered pipeline quality natural gas as defined in 40 CFR Part 72. The demonstration shall be made using any of the methods identified in 40 CFR Part 75 Appendix D, Section 2.3.1.4.(a). These records shall be made available to the Division upon request.

- 8.10 **For each combustion turbine/HRSG/duct burner**, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained and operated (Colorado Construction Permit 99EP0851, as modified under the provisions of Section I, Condition 1.3 and 40 CFR Part 75) and capable of measuring and recording the following:

- 8.10.1 Hourly concentration of Nitrogen Oxides in the turbine exhaust, ppmvd, corrected to 15 % Oxygen;
- 8.10.2 Emissions of Nitrogen Oxides, pounds per hour, pounds per megawatt-hour, tons per month, and tons per rolling 12-month periods;
- 8.10.3 Hourly concentration of Carbon Monoxide in the turbine exhaust, ppmvd, corrected to 15 % Oxygen;
- 8.10.4 Emissions of Carbon Monoxide, pounds per hour, tons per month, and tons per rolling 12-month periods;
- 8.10.5 Hourly concentration of Oxygen in the turbine exhausts, percent;
- 8.10.6 Fuel flow rate, SCF per hour for natural gas
- 8.10.7 Load, in MW, at which turbine is operating.

The quality assurance procedures of 40 CFR Part 60 Appendix F or 40 CFR Part 75 shall be followed for the CEMs. The CEMS shall meet the requirements in Condition 9 of this permit.

- 8.11 The heat content of the natural gas may be obtained from purchasing contract specifications, vendor receipts or by fuel sampling and testing. Copies of the receipts or a copy of specifications shall be kept with the compliance determination records and made available for Division review upon request. If the natural gas heat content is to be obtained from sampling and testing by the CSU, CSU shall prepare and submit for Division approval a natural gas sampling and testing plan within six (6) calendar months of the issuance date of this Operating Permit. The values used for the compliance determinations shall be the values from the most recent receipt, contract specifications or test results.
- 8.12 These **combustion turbines/HRSsGs/duct burners** are subject to 40 CFR Part 60, Subpart A - General Provisions, as adopted by reference in Colorado Regulation No. 6, Part A. Specifically, these units are subject to the following requirements:
- 8.12.1 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere (Colorado Construction Permit 99EP0851 and 40 CFR Part 60 Subpart A § 60.12)
- 8.12.2 At all times, including periods of startup, shutdown, and malfunction owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (Colorado Construction Permit 99EP0851 and 40 CFR Subpart A § 60.11(d)).
- 8.12.3 Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.
- 8.12.4 Written notification of continuous monitoring system demonstrations shall be submitted to the Division as required under § 60.7.
- 8.12.5 Written notification of opacity observation or monitor demonstrations shall be submitted to the Division as required under § 60.7.
- 8.12.6 Excess Emission and Monitoring System Performance Reports shall be submitted as required under § 60.7.
- 8.12.7 Performance tests shall be conducted as required under § 60.8.

- 8.12.8 Compliance with opacity standards shall be demonstrated according to § 60.11.
- 8.12.9 Continuous monitoring systems shall be maintained and operated as required under § 60.13.
- 8.13 **[State-only]** No owner or operator may discharge, or cause the discharge into the atmosphere of any particulate matter which is greater than 20% opacity (Colorado Regulation No. 6, Part B, Section II.C.3). This opacity standard applies to **each combustion turbine/HRSG/duct burner**. In the absence of credible evidence to the contrary, compliance with the opacity limitation shall be presumed whenever pipeline quality natural gas is used as fuel in the turbines and duct burners.
- 8.14 Except as provided for in Condition 8.15 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Construction Permit 99EP0851 and Colorado Regulation No. 1, Section II.A.1). This opacity standard applies to **each combustion turbine/HRSG/duct burner**. In the absence of credible evidence to the contrary, compliance with the opacity limitation shall be presumed whenever pipeline quality natural gas is used as fuel in the turbines and duct burners.
- 8.15 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4). This opacity standard applies to **each combustion turbine/HRSG/duct burner**. In the absence of credible evidence to the contrary, compliance with the opacity limitation shall be presumed whenever pipeline quality natural gas is used as fuel in the turbines and duct burners.
- 8.16 No owner or operator of a source shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity ((40 CFR Part 60 Subpart Da § 60.42a(b), as adopted by reference in Colorado Regulation No. 6, Part A). This opacity standard applies to **each duct burner**. In the absence of credible evidence to the contrary, compliance with the opacity limit shall be presumed whenever pipeline quality natural gas is used as fuel for these units.
- This opacity standard applies at all times except during periods of startup, shutdown and malfunction (40 CFR Part 60 Subpart A § 60.11(c), as adopted by reference in Colorado Regulation No. 6, Part A).
- 8.17 These units are subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit.

9. Continuous Emission Monitoring and Continuous Opacity Monitoring Requirements

Note that the continuous emission monitoring requirements identified in this Condition **for each unit**, are in addition to the continuous emission monitoring requirements required by the Acid Rain Program, which are identified in Section III of this permit.

9.1 Equipment and QA/QC Requirements

- 9.1.1 Continuous Emission Monitoring (CEM) and Continuous Opacity Monitoring (COM) systems are required for measurement of stack emissions in Condition 1.10, 7.9, and 8.10. The quality assurance/quality control plan required by 40 CFR Part 75, Appendix B shall be made available to the Division upon request. As needed, the permittee will work with the Division to resolve any requested revisions to the plan.
- 9.1.2 Relative Accuracy Test Audits (RATAs): RATAs shall be conducted in the units of the emission limitation for all of the emissions limitations that are applicable to the emission unit. RATAs for emission units that have annual emission limitations (tons/yr) shall be conducted in terms of pounds per hour (lb/hr).
- 9.1.3 The Data Acquisition and Handling System shall be able to record and manipulate the data in the units of the emission limitations that are applicable to the emission unit.

9.2 General Provisions

- 9.2.1 The permittee shall ensure that all continuous emission and opacity monitoring systems required are in operation and monitoring unit emissions or opacity at all times that the affected unit combusts any fuel except as provided in 40 CFR § 75.11(e) and during periods of calibration, quality assurance, or preventative maintenance performed pursuant to 40 CFR Part 75, § 75.21 and Appendix B, periods of repair, periods of backups of data from the data acquisition and handling system or recertification performed pursuant to 40 CFR § 75.20. The permittee shall also ensure, subject to the exceptions just noted, that the continuous opacity monitoring systems required are in operation and monitoring opacity during the time following combustion when fans are still operating unless fan operation is not required to be included under any other applicable requirement (40 CFR Part 75 § 75.10(d)).
- 9.2.2 Alternative monitoring systems, alternative reference methods, or any other alternatives for the required continuous emission monitoring systems shall not be used without having obtained prior written approval from the appropriate agency, either the Division or the U. S. EPA, depending on which agency is authorized to approve such alternative under applicable law. Any alternative continuous emission monitoring systems or continuous opacity monitoring systems must be certified in accordance with the applicable requirements of 40 CFR Part 60 or 40 CFR Part 75 prior to use.

- 9.2.3 All test and monitoring equipment, methods, procedures and reporting shall be subject to the review and approval by the appropriate agency, either the Division or the U. S. EPA, depending on which agency is authorized to approve such item under applicable law, prior to any official use. The Division shall have the right to inspect such equipment, methods and procedures and data obtained at any time. The Division may provide a witness(s) for any and all tests as Division resources permit.
- 9.2.4 A file suitable for inspection shall be maintained of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by applicable portions of 40 CFR Part 75.
- 9.2.5 Records shall be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- 9.3 Continuous Emission Monitoring (CEM) Systems
- 9.3.1 The CEMS are subject to the requirements of 40 CFR Part 75. Each monitoring system shall meet the equipment, installation and performance specifications of 40 CFR Part 75, Appendix A.
- 9.3.2 The permittee shall follow the 40 CFR Part 75 quality assurance and quality control procedures of Appendix B, the missing data estimation procedures of Appendix C, the carbon dioxide determination procedures of Appendix G and the traceability protocols of Appendix H.
- 9.3.3 When a continuous monitoring system is unable to provide quality assured data, the permittee may use either of the following monitoring methods:
- 9.3.3.1 A backup monitor may be used to monitor compliance with the NO_x and SO₂ emission limits. If backup monitors are used as described in 40 CFR Part 75 Subpart C, the next quarterly or semi-annual NSPS excess emissions report, shall identify the dates and times the backup monitors were in use. The requirement to provide data regarding when a backup monitoring system is in use shall not apply where two or more completely redundant monitoring systems are on-line at all times
- 9.3.3.2 The permittee shall monitor compliance with the SO₂ and NO_x emission limitations by using the data substitution procedures in 40 CFR Part 75, Subpart D.
- 9.4 Continuous Opacity Monitoring (COM) Systems

- 9.4.1 The Continuous Opacity Monitoring (COM) Systems are subject to the requirements of 40 CFR Part 75. Each continuous opacity monitoring system shall meet the design, installation, equipment and performance specifications in 40 CFR Part 60, Appendix B, Performance Specification 1.
- 9.4.2 The permittee shall check the zero and span drift of the system at least once per day and at such other times as designated by the Division, according to procedures approved by the Division. The Division may also make such determinations in order to assure proper quality assurance (Colorado Regulation No. 1, Section IV. F)
- 9.4.3 When the opacity monitoring system is unable to provide quality assured data in accordance with 40 CFR Part 75, the permittee may elect to utilize a backup opacity monitor or EPA Reference Method 9, or an “Operating Report During Monitor Unavailability” to satisfy the requirements for periodic monitoring under 40 CFR Part 70 and Colorado Regulation No. 3.
 - 9.4.3.1 If backup monitors are used as described in 40 CFR Part 75, Subpart C, the next quarterly report submitted by the permittee shall identify the dates and times the backup monitors were in use.
 - 9.4.3.2 If EPA Reference Method 9 opacity observations are used, opacity observations in accordance with the reference method shall be made and recorded by the permittee whenever the source is in operation and the opacity monitoring system has been out of service for more than eight (8) consecutive hours while fuel is present in the boiler.
 - a. The Method 9 opacity observations shall be performed by a certified opacity observer. An inspection for visible emissions shall be performed for a thirty (30) continuous minute period at least once in the morning and once in the afternoon until the opacity monitoring system is again able to provide quality assured data. If a Method 9 opacity observation cannot be performed in accordance with EPA Reference Method 9, the permittee shall record the reasons why that is the case. If visible emissions other than steam persist for more than six (6) continuous minutes, a certified observer shall perform an EPA Reference Method 9 opacity observation. If any of the EPA Reference Method 9 opacity observations required above exceed the applicable standard, additional EPA Reference Method 9 observations must be performed. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 opacity observation is taken that shows an exceedance of the opacity limit until a Method 9 opacity observation is taken that shows that the opacity is less than the opacity limit. A written explanation for the visible emissions shall be prepared and filed with the copy of the

Method 9 observation. Such records shall be made available for Division review upon request.

- b. A clear, readable, and permanent copy of the observer's certificate shall be kept with the observations. The observations and the certificate shall be made available to the Division for review upon request.

- 9.4.3.3 If an "Operating Report During Monitor Unavailability" is used, the source shall record the opacity monitor registered reading prior to the monitor unavailability period and that immediately following such periods. Records shall be kept to provide a description of the boiler and control equipment operating characteristics that demonstrate the likelihood of compliance with the applicable opacity limitation. The records shall document specific values for identified characteristics where appropriate. Such operating circumstances shall be identified on a boiler specific basis and provided to the Division and shall include information related to the operation of the control equipment and other operational parameters that may affect opacity.

9.5 Recordkeeping and Reporting Requirements

- 9.5.1 The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the calendar month following the end of each calendar quarter, a report of excess emissions for all pollutants monitored for that quarter (40 CFR Part 60 Subpart A § 60.7(c)). This report shall consist of the following information and/or reporting requirements as specified by the Division:

- 9.5.1.1 The magnitude of excess emissions computed in accordance with 40 CFR Part 60 Subpart A § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions and the process operating time during the reporting period (40 CFR Part 60 Subpart A § 60.7(c)(1)).
- 9.5.1.2 Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted (40 CFR Part 60 Subpart A § 60.7(c)(2)).
- 9.5.1.3 The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments (40 CFR Part 60 Subpart A § 60.7(c)(3)).
- 9.5.1.4 When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such

information shall be stated in the report (40 CFR Part 60 Subpart A § 60.7(c)(4)).

- 9.5.2 The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the month following the end of each calendar quarter, a summary report for that quarter (40 CFR Part 60 Subpart A § 60.7(c)). One summary report form shall be submitted for each pollutant monitored. This report shall contain the information and be presented in a format approved by the Division.

If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and continuous monitoring system (CMS) downtime is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in Condition 8.5.1 need not be submitted unless required by the Division (40 CFR Part 60 Subpart A § 60.7(d)(1)).

If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in Condition 8.5.1 shall both be submitted (40 CFR Part 60 Subpart A § 60.7(d)(1)).

10. Stack Testing

Performance testing of B001 for particulate matter emissions (PM & PM₁₀) shall be performed within 180 days of renewal permit issuance [April 1, 2013] in accordance with the requirements and procedures set forth in EPA Test Method 5 as set forth in 40 CFR Part 60, Appendix A. Frequency of testing, thereafter shall be annual except that: (1) if the first test required by this renewal permit or any subsequent test results indicate emissions are less than or equal to 50% of the emission limit, another test is only required within five years; (2) if the first test required by this renewal permit or any subsequent test results indicate emissions are more than 50%, but less than or equal to 75% of the emission limit, another test is only required within three years; (3) if the first test required by this renewal permit or any subsequent test results indicate emissions are greater than 75% of the emission limit, an annual test is required until the provisions of (1) or (2) are met. A test run shall consist of three test runs, with each run at least 120 minutes in duration. Test results shall be converted to the applicable units and compliance will be based on the average of the three test runs.

A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to any performance of the test required under this condition. No stack test required herein shall be performed without prior written approval of the protocol by the Division. The Division reserves the right to witness the test. In order to facilitate the Division's ability to make plans to witness the test, notice of the date (s) for the stack test shall be submitted to the Division at least thirty (30) calendar days prior to the test. The Division may for good cause shown, waive this thirty (30) day notice requirement. In instances when a scheduling conflict is presented, the Division shall immediately contact the permittee in order to explore the possibility of making modifications to the stack test schedule. The

compliance test results shall be submitted to the Division within forty-five (45) calendar days of the completion of the test unless a longer period is approved by the Division.

- 11. Detroit Diesel GM V12 diesel-fired emergency generator engine (449 HP)**
Cummins Model N-855-F diesel-fired emergency fire pump engine (218 HP)
Cummins Model NT495FP diesel-fired emergency fire pump engine (170 HP)
Caterpillar Model 3304 diesel-fired emergency generator engine (192 HP)
John Deere Model RG601HF001 diesel-fired emergency fire pump engine (290 HP)

| Parameter | Permit Condition Number | Limitations | | Compliance Emission Factor (lb/MMBtu) | Monitoring | | |
|--|-------------------------|--|-----------|---------------------------------------|------------------------------------|--------------------|--|
| | | Short Term | Long Term | | Method | Interval | |
| Opacity | 12.1 | Not to Exceed 20% Except as Provided for Below | | | EPA Method 9 | See Condition 12.1 | |
| | | For Startup – Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes | | | | | |
| [Federal-Only] NESHAP Subpart ZZZZ | 12.2 | Regular Maintenance and Inspections | | | See Condition 12.2 | | |
| [Federal-Only] NESHAP General Provisions | 12.3 | | | | As required by 40 CFR 63 Subpart A | | |

Note that this emission unit is currently exempt from the APEN reporting requirements in Regulation No. 3, Part A and the construction permit requirements in Regulation No. 3, Part B.

- 11.1 Visible emission shall not exceed 20% opacity (Colorado Regulation No. 1, Section II.A.1) except during startup when visible emissions shall not exceed 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

Compliance with the opacity limitations in this Condition 12.1 shall be monitored by conducting opacity observations in accordance with EPA Reference Method 9 as follows:

- 11.1.1 An engine startup period of less than 60 minutes shall not require a startup opacity observation. If the engine startup period is greater than 60 minutes, one opacity observation shall be made for each consecutive 4 hour period of startup during daylight hours. In addition, a record shall be kept of the date and time the engine started and when it was shutdown.
- 11.1.2 Continued operation of the engine after the completion of the startup period shall require monthly opacity observations. If the startup and operation of the engine lasts less than a total of 4 hours from engine start to engine stop, in any one day no opacity observations are required for that day.

- 11.1.3 If no opacity observations are made pursuant to Conditions 12.1.1 and 12.1.2 above, then an opacity observation shall be conducted annually for each calendar year the engine was operated.
- 11.1.4 All opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings and a copy of the certified Method 9 reader's certificate shall be kept on site and made available to the Division upon request.
- 11.2 **[Federal-Only]** This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), as follows:

These requirements included in this Condition 12.2 are only federally enforceable. As of the date of revised permit issuance [April 1, 2013], the requirements in 40 CFR Part 63 Subpart ZZZZ, last updated on March 9, 2011, have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division adopts these requirements these engines will be subject to the APEN reporting and minor source permitting requirements and these requirements will be state-enforceable.

- 11.2.1 The facility must comply with the applicable requirements no later than May 3, 2013. (§ 63.6595(a)(1))

Operating and Maintenance Requirements

- 11.2.2 Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (§ 63.6625(e))
- 11.2.3 The following operating and maintenance requirements apply to this emergency stationary compression ignition RICE located at major source for HAPs: (40 CFR Part 63 Subpart ZZZZ Table 2c)
- 11.2.3.1 Change oil and filter every 500 hours of operation or annually, whichever comes first (Table 2c, item 1.a)
- 11.2.3.2 Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first (Table 2c, item 1.b)
- 11.2.3.3 Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary (Table 2c, item 1.c)
- 11.2.3.4 During periods of startup minimize the engine's time spent idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. (Table 2c & §63.6625(h)).

Notwithstanding the above requirements, the following applies:

11.2.3.5 Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Condition 12.2.3.1. (Table 2c, footnote 2)

- a. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 12.2.3.1. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. (§ 63.6625(i))

11.2.3.6 If this engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2c of Subpart ZZZZ, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. (Table 2c, footnote 1)

11.2.4 Compliance with the emission limitations and operating limitations in this subpart must be achieved at all times. (§63.6605(a))

Hours of Operation

11.2.5 This engine must be equipped with a non-resettable hour meter if one is not already installed. (§ 63.6625(f))

11.2.6 Operation of the engine shall be in accordance with the following: (§ 63.6640(f))

11.2.6.1 Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. (§ 63.6640(f)(1))

- 11.2.6.2 There is no time limit on the use of emergency stationary RICE in emergency situations. (§ 63.6640(f)(2))
- 11.2.6.3 This engine may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. (§ 63.6640(f)(3))
- 11.2.6.4 The engine may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this Condition 12.2.6.4, as long as the power provided by the financial arrangement is limited to emergency power. (§ 63.6640(f)(4))

Records

- 11.2.7 Records shall be kept of the hours of operation of the engine that is recorded through the non-resettable hour meter as required by Condition 12.2.5. Hours spent for emergency operations, including what classified the operation as emergency and hours spent for non-emergency operations must be documented. If the engines are used for demand response operation, records must be kept of the notification of the emergency situation, and the time the engine was operated as part of demand response. (§ 63.6655(f))
- 11.2.8 Records shall be kept of the maintenance conducted on the stationary RICE in order to demonstrate that the operation and maintenance of the stationary RICE and after-

treatment control device was in accordance with the maintenance plan (§ 63.6655(e) and § 63.6655(e)(3))

- 11.3 **[Federal-Only]** This engine is subject to the requirements in 40 CFR part 63 Subpart A “General Provisions”, as adopted by reference in Colorado Regulation No. 8, Part E, Section I as specified in 40 CFR Part 63 Subpart ZZZZ § 63.6665. These requirements include, but are not limited to the following:

11.3.1 Prohibited activities in § 63.4(a).

11.3.2 Circumvention in § 63.4(b)

SECTION III - Acid Rain Requirements

1. Designated Representative and Alternate Designated Representative

Designated Representative:

Name: George Luke
Title: Energy Services General Manager
Phone: (719) 668-5801

Alternate Designated Representative:

Name: David W Padgett
Title: Environmental Health and Safety Officer
Phone: (719) 668-8679

2. Sulfur Dioxide Emission Allowances and Nitrogen Oxide Emission Limitations

| Unit 1 - Boiler | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| SO ₂ Allowances, per 40 CFR Part 73.10(b), Table 2 | 4203* | 4203* | 4203* | 4203* | 4203* | 4203* |
| NO _x Limits per 40 CFR Part 76.7 | 0.46 lbs/mmBtu | 0.46 lbs/mmBtu | 0.46 lbs/mmBtu | 0.46 lbs/mmBtu | 0.46 lbs/mmBtu | 0.46 lbs/mmBtu |

* Under the provisions of §72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

| Unit 2 - Combustion Turbine | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|------|------|------|------|------|
| SO ₂ Allowances, per 40 CFR Part 73.10(b), Table 2 | 0* | 0* | 0* | 0* | 0* | 0* |
| NO _x Limits | This Unit Has No NO _x Limits (See Section 6) | | | | | |

* Under the provisions of §72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

| Unit 3 - Combustion Turbine | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|------|------|------|------|------|
| SO ₂ Allowances, per 40 CFR Part 73.10(b), Table 2 | 0* | 0* | 0* | 0* | 0* | 0* |
| NO _x Limits | This Unit Has No NO _x Limits (See Section 6) | | | | | |

* Under the provisions of §72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

| Front Range Power Plant - Combustion Turbine No. 1 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|------|------|------|------|------|
| SO ₂ Allowances, per 40 CFR Part 73.10(b), Table 2 | 0* | 0* | 0* | 0* | 0* | 0* |
| NO _x Limits | This Unit Has No NO _x Limits (See Section 6) | | | | | |

* Under the provisions of §72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

| Front Range Power Plant - Combustion Turbine No. 2 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|------|------|------|------|------|
| SO ₂ Allowances, per 40 CFR Part 73.10(b), Table 2 | 0* | 0* | 0* | 0* | 0* | 0* |
| NO _x Limits | This Unit Has No NO _x Limits (See Section 6) | | | | | |

* Under the provisions of §72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

3. Standard Requirements (version 4/16/09)

Units 1, 2, 3, and FRPP CT 1 and 2 of this facility is subject to and the source has certified that they will comply with the following standard conditions.

Permit Requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the Division determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the Division; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Federal Clean Air Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance account (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Federal Clean Air Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan to the Administrator of the U. S. EPA, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

- (i) Pay without demand, to the Administrator of the U. S. EPA, the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
- (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or the Division:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Federal Clean Air Act.
 - (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Federal Clean Air Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Federal Clean Air Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Federal Clean Air Act, including the provisions of title I of the Federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Federal Clean Air Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

4. Reporting Requirements

Reports shall be submitted to the addresses identified in Appendix D.

Pursuant to 40 CFR Part 75.64 quarterly reports and compliance certification requirements shall be submitted to the Administrator **within 30 days after the end of the calendar quarter**. The contents of these reports shall meet the requirements of 40 CFR 75.64.

Pursuant to 40 CFR Part 75.65 excess emissions of opacity shall be reported to the Division. These reports shall be submitted in a format approved by the Division.

Revisions to this permit shall be made in accordance with 40 CFR Part 72, Subpart H, §§ 72.80 through 72.85 (as adopted by reference in Colorado Regulation 18). Permit modification requests shall be submitted to the Division at the address identified in Appendix D.

Changes to the Designated Representative or Alternate Designated Representative shall be made in accordance with 40 CFR 72.23.

5. Comment, Notes and Justifications

Nixon Combustion Turbine Units No. 2 and 3 and Front Range Power Plant Combustion Turbines No. 1 and 2 do not burn coal. The NO_x limitations in 40 CFR Part 76 are only applicable to coal-fired utility units.

SECTION IV - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D. & XIII.B; § 25-7-114.4(3)(a), C.R.S.

1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modifications or reconstruction on which construction commenced prior to permit issuance.

| Emission Unit Description & Number | Applicable Requirement | Justification |
|--|--|---|
| B001 | Colorado Regulation No. 6, Part A, 40 CFR Subpart Da Applicable Sources | “Commenced Construction” of this unit prior to September 18, 1978. Commenced construction, as defined by 40 CFR Section 60.2. |
| | 40 CFR Subpart 60, §60.44 Continuous monitoring of emissions of nitrogen oxides | 40 CFR Subpart 60, ' 60.45(b)(3) allows the source to not provide a nitrogen oxide continuous emission monitoring system if the initial performance test demonstrates that the emissions of nitrogen oxides are less than 70% of the applicable standard of 40 CFR Subpart 60, ' 60.44. The initial performance test results demonstrated that the continuous emissions monitor was not required. |
| B001 & B002 | Regulation No. 6, Part B | Construction of boilers commenced prior to January 30, 1979. |
| F202 | 40 CFR Part 60, Subpart Y (Colorado Regulation No. 6, Part A) | Subpart Y does not apply to coal stock piles (§60.251(h)) and equipment that moves coal from the rail cars to the stockpile (Applicability Determination Index No. NR90) |
| Facility-wide | 40 CFR Part 64 | The Operating Permit application for the facility sources was deemed complete by the Division prior to April 20, 1998. |
| Facility-wide except for the two Nixon combustion turbines and the two Front Range Combustion Turbines | Prevention of Significant Deterioration provisions, 40 CFR §52.21 (Colorado Regulation No. 3, Part B, §IV.D.3) | These sources were existing sources as of the June 15, 1975 effective date of 40 CFR Part 52.21 |

2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

- 2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;

- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;
- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;
- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Stream-lined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

| Permit Condition(s) | Streamlined (Subsumed) Requirements |
|---------------------------------------|--|
| Section II, Condition 1.4 | 40 CFR Part 60 Subpart D § 60.43(a)(2), as adopted by reference in Colorado Regulation No. 6, Part A [SO ₂ emissions shall not exceed 1.2 lb/MMBtu] |
| Section II, Condition 8.1 - 8.5 | Colorado Regulation No. 1, Section IV.A., B, & G [continuous emission monitoring requirements – general continuous monitoring requirements & excess emission reporting requirements] |
| Section V, Conditions 22.b & c | Colorado Regulation No. 1, Section IV. H [continuous emission monitoring requirements - maintaining a file of continuous emission monitoring records] |
| Section II, Conditions 7.4.3 & 11.4.1 | Colorado Regulation No. 6, Part B.II.D.3.b [Standards for Sulfur Dioxide: Combustion Turbines] |
| Section II, Conditions 7.2.2 & 11.6.3 | Colorado Regulation No. 6, Part B.II.C [Standards for Particulate Matter] |
| Section II, Condition 7.5.1.1 | 40 CFR Part 60 Subpart GG §60.322(a)(1), as adopted by reference in Colorado Regulation No. 6, Part A [NO _x emission limitation] |
| Section II, Conditions 7.13 & 11.9 | 40 CFR Part 60 Subpart GG §60.334(h)(3), as adopted by reference in Colorado Regulation No. 6, Part A [source shall monitor the sulfur content of the fuel] |
| Section II, Conditions 7.9 & 11.10 | 40 CFR Part 60 Subpart GG § 60.334(j)(1)(iii), as adopted by reference in Colorado Regulation No. 6, Part A [NO _x excess emission reporting] |

SECTION V - General Permit Conditions

(Ver. 5/22/2012)

1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. Certification Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- c. Compliance certifications shall contain:
 - (i) the identification of each permit term and condition that is the basis of the certification;
 - (ii) the compliance status of the source;
 - (iii) whether compliance was continuous or intermittent;
 - (iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.
- e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. Common Provisions

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II.E., II.F., II.I, and II.J

- a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- (i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for test methods applicable to such facility;
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- (iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

- (i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;
- (ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;
- (iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;
- (iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
- (v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;
- (viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and
- (x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.
- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:
 - (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and
 - (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

- g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. Emergency Provisions

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.E

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. the permitted facility was at the time being properly operated;
- c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

6. Emission Controls for Asbestos

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

7. Emissions Trading, Marketable Permits, Economic Incentives

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. Fee Payment

C.R.S §§ 25-7-114.1(6) and 25-7-114.7

- a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.
- b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.

- c. The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

9. Fugitive Particulate Emissions

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. Inspection and Entry

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;
- b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

11. Minor Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. New Source Review

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.- II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

“Prompt” is defined as follows:

- a. Any definition of “prompt” or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or
- b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;
 - (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and
 - (iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.
- c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

“Prompt reporting” does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. Record Keeping and Reporting Requirements

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
 - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
 - (ii) date(s) on which analyses were performed;
 - (iii) the company or entity that performed the analysis;
 - (iv) the analytical techniques or methods used;
 - (v) the results of such analysis; and
 - (vi) the operating conditions at the time of sampling or measurement.
- b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.
- c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division’s review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.

- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. Reopenings for Cause

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.
- c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.
- d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

The requirements in paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area. The requirements in paragraphs c and d apply statewide.

- a. All storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

- b. Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be

transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

- c. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.
- d. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.
- e. Beer production and associated beer container storage and transfer operations involving volatile organic compounds with a true vapor pressure of less than 1.5 PSIA actual conditions are exempt from the provisions of paragraph b, above.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

OPERATING PERMIT APPENDICES

- A - INSPECTION INFORMATION
- B - MONITORING AND PERMIT DEVIATION REPORT
- C - COMPLIANCE CERTIFICATION REPORT
- D - NOTIFICATION ADDRESSES
- E - PERMIT ACRONYMS
- F - PERMIT MODIFICATIONS
- G - COMPLIANCE ASSURANCE MONITORING PLAN

***DISCLAIMER:**

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

APPENDIX A

Inspection Information

Directions to Plant:

The facility is located west of Interstate 25 about 17 miles south of Colorado Springs. Take Exit 125 from I-25 and follow the road to the plant. There is an access security station at the entrance to the site.

Safety Equipment Required:

Eye Protection Hard Hat Hearing Protection

Facility Plot Plan:

The following figures show the maps and plot plans as submitted with the source's original Title V Operating Permit application, and with the renewal application.

List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Specific insignificant activities and/or sources of emissions at the Nixon Power Plant as submitted in the application are as follows:

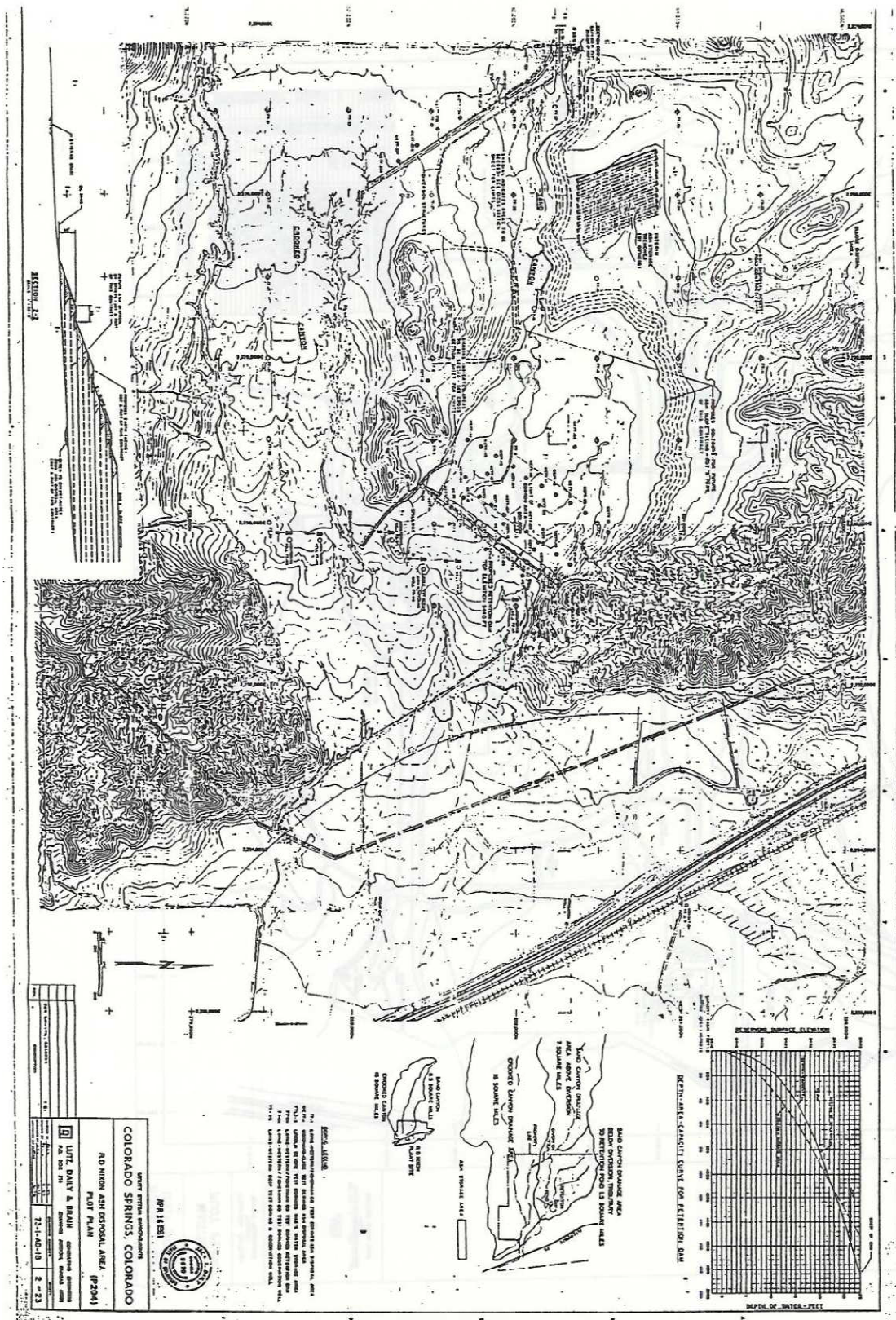
| Unit ID | Stack ID | Description | | Unit ID | Stack ID | Description |
|---------|----------|---|--|---------|----------|--|
| T101 | S101 | Sulfuric acid tank vent | | T108 | S108 | Sulfuric acid day tank - effluent treatment building |
| T102 | S102 | Sodium hydroxide tank vent | | T109 | S109 | Turbine lube oil detention tank vent |
| T103 | S103 | Fuel oil storage tank vent | | | S109b | Turbine lube oil tank vapor extractor vent |
| T104 | S104 | Sulfuric acid storage tank vent | | | S109c | Turbine lube oil conditioner vapor extractor |
| T015 | S105 | PCL 716 storage tank #1 outside chlorine building | | T106 | S106 | PCL 716 storage tank #2 outside chlorine building |
| T107 | S107 | Sulfuric acid storage tank vent - effluent treatment building | | T111 | S111 | Heavy equipment diesel oil storage tank vent |
| T110 | S110 | Waste oil storage tank | | T112 | S112 | PRETECT 2000 tank vent |
| P-206 | F206 | Chlorine & chemical storage building | | P209 | F209 | Chlorine storage in water softening building |
| P207 | F207 | Chlorine building (by equalization basin) | | P210 | F210 | Air compressor moisture separator drains |
| P208 | F208 | Chlorine storage in zero discharge treatment building | | | | |

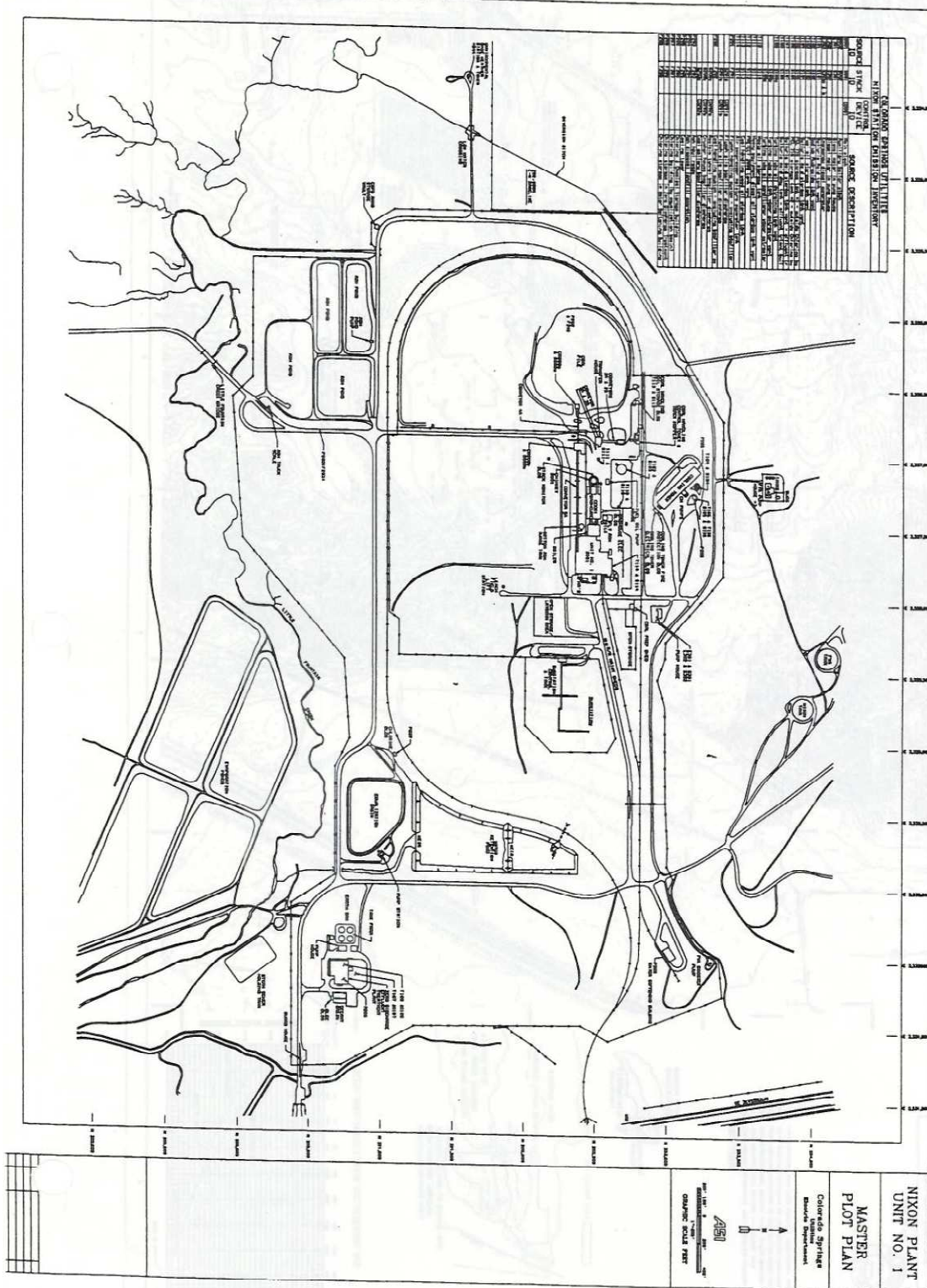
Specific insignificant activities at the FRPP are as follows:

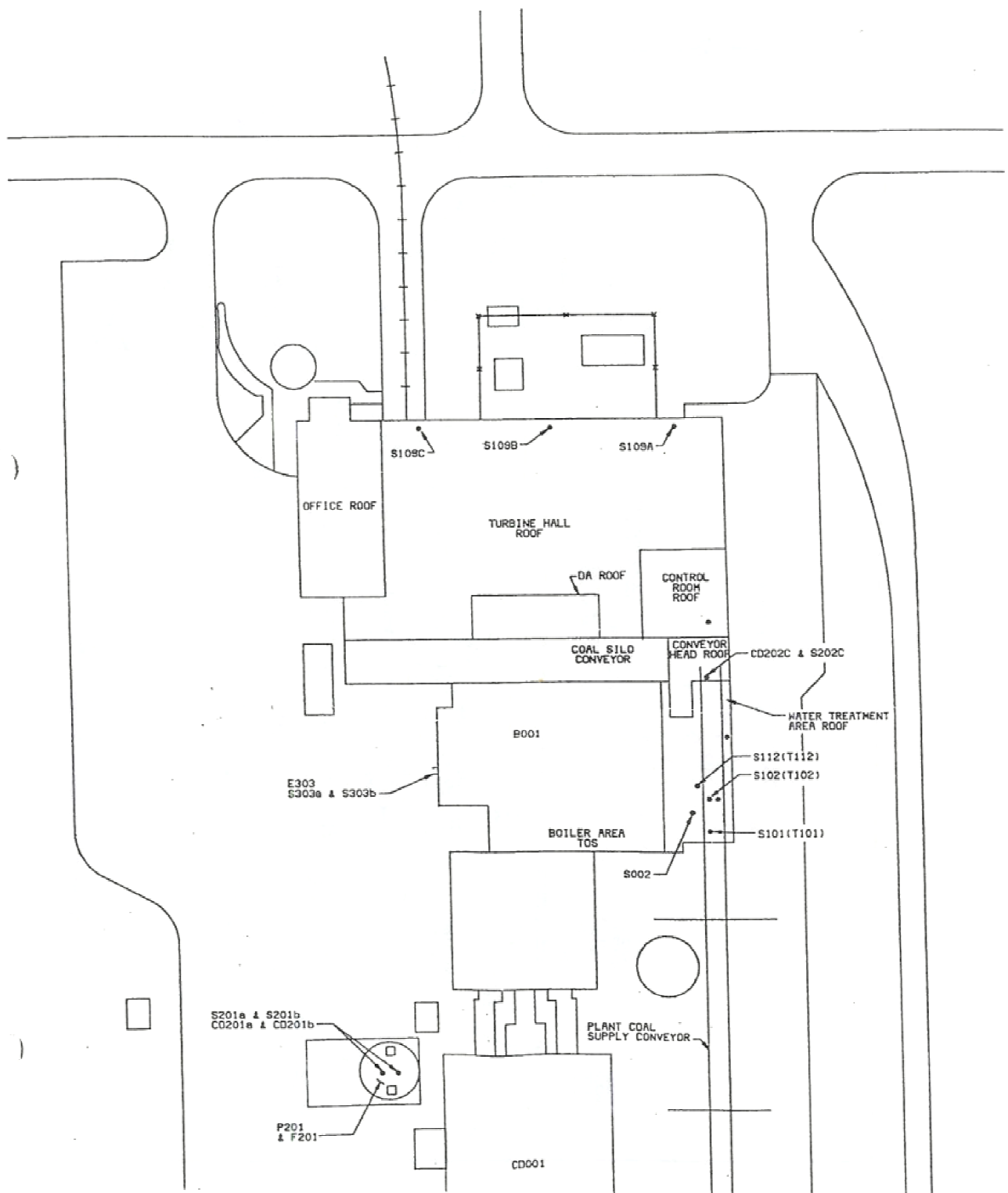
- Startup fuel gas heater, 2.25 MMBtu/hr
- 500 gallon storage shed containing lubricating oils
- Unpaved roads
- Garage ventilation hood
- Gas fired heaters/furnaces in buildings used for comfort
- Venting of Natural Gas

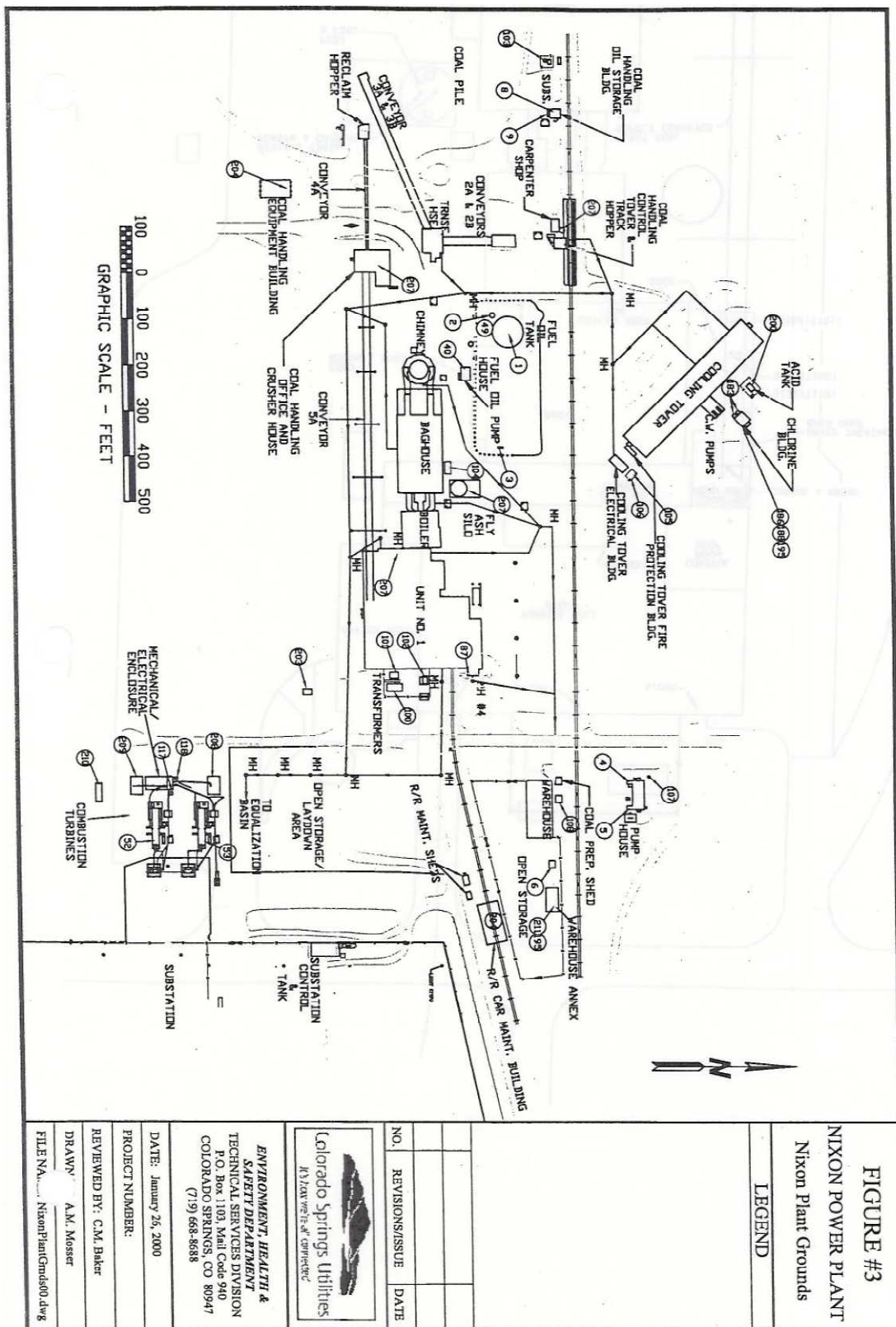
In addition to the above specific insignificant activities the following generic activities are identified:

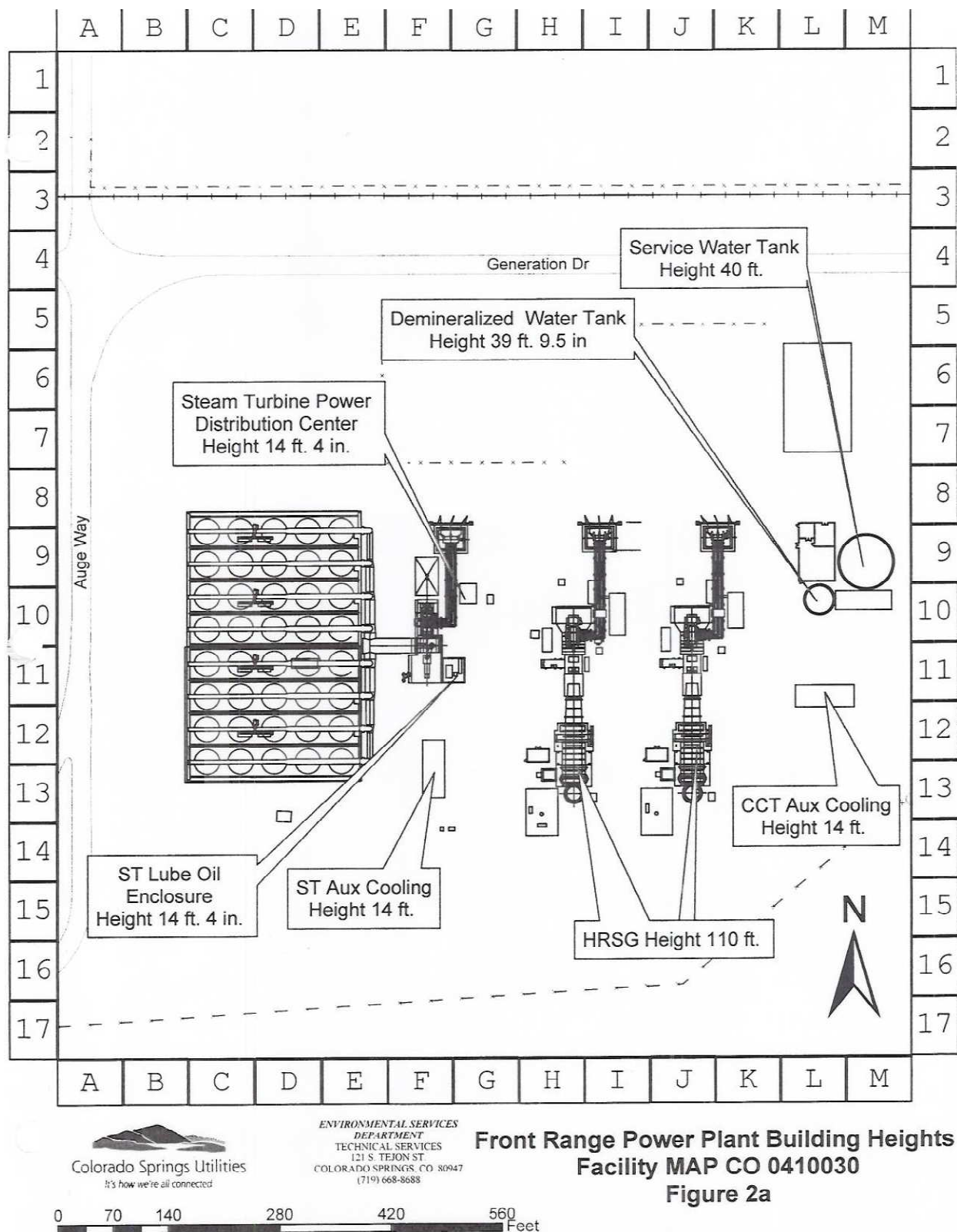
- An in-house analytical laboratory equipment which is bench scale in nature for analysis of coal and water samples at the plant;
- Chemical storage tanks or containers that hold less than 500 gallons, and which have a daily throughput less than 25 gallons;
- Landscaping and site housekeeping devices equal to or less than 10 H.P. in size (lawnmowers, trimmers, snowblowers, etc.);
- Chemical storage areas where chemicals are stored in closed containers, and where total storage capacity does not exceed 5000 gallons. This exemption applies solely to storage of such chemicals. This exemption does not apply to transfer of chemicals from, to, or between such containers.
- Storage tanks of capacity < 40,000 gallons of lubricating oils;
- Storage tanks meeting all of the following criteria:
 - annual throughput is less than 400,00 gallons; and
 - the liquid is one of the following:
 - diesel fuels 1-D, 2-D or 4-D;
 - fuel oils #1 through #6;
 - gas turbine fuels 1-GT through 4-GT;
 - an oil/water mixture with a vapor pressure lower than that of diesel fuel (Reid vapor pressure of 0.025 PSIA).
- Air pollution emission units, operations or activities with emissions less than the appropriate de minimis reporting level.

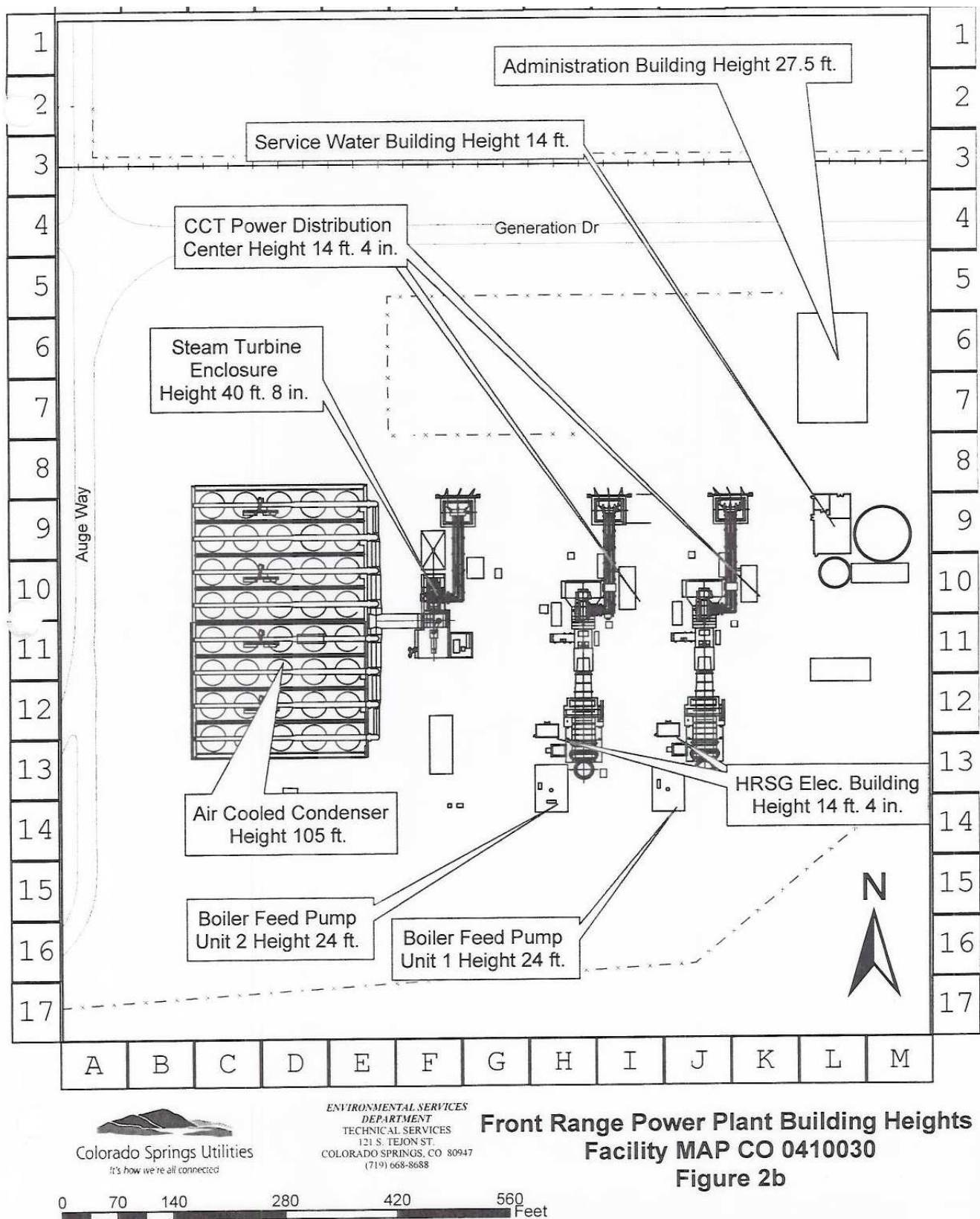












APPENDIX B

Reporting Requirements and Definitions

with codes ver 2/20/07

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- (A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported “promptly”)

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit requirements, including those attributable to malfunctions as defined in this Appendix, the probable cause of

such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, “malfunction” shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- (2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;
- (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,
- (4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

| | |
|-------------------------|--|
| 1 = Standard: | When the requirement is an emission limit or standard |
| 2 = Process: | When the requirement is a production/process limit |
| 3 = Monitor: | When the requirement is monitoring |
| 4 = Test: | When the requirement is testing |
| 5 = Maintenance: | When required maintenance is not performed |
| 6 = Record: | When the requirement is recordkeeping |
| 7 = Report: | When the requirement is reporting |
| 8 = CAM: | A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. |
| 9 = Other: | When the deviation is not covered by any of the above categories |

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;
- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.¹
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

¹ For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

Startup, Shutdown, Malfunctions and Emergencies,

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

Under the Emergency provisions of Part 70 certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

APPENDIX B: Monitoring and Permit Deviation Report - Part I

- Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.
- Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Colorado Springs Utilities – Ray D. Nixon Power Plant

OPERATING PERMIT NO: 95OPEP106

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

| Operating Permit Unit ID | Unit Description | Deviations noted During Period? ¹ | | Deviation Code ² | Malfunction/Emergency Condition Reported During Period? | |
|-----------------------------|---|---|----|--------------------------------|---|----|
| | | YES | NO | | YES | NO |
| B001 | Babcock and Wilcox Pulverized Coal Front Fired Dry Bottom SN A-001, firing coal. The coal burner igniters fire No.2 fuel oil or NG in the future. | | | | | |
| B002 | Cleaver-Brooks boiler Model WL-2799 SN DL-60 firing No. 2 fuel oil or NG. | | | | | |
| S003 | General Electric Model PG6541(B) SN 296510, natural gas fired, simple cycle combustion turbine equipped with dry low NOx combustion system | | | | | |
| S004 | General Electric Model PG6541(B) SN 296511, natural gas fired, simple cycle combustion turbine equipped with dry low NOx combustion system, | | | | | |
| P205 | Unit 1 Cooling Tower – Marley 6515-4-10 | | | | | |
| P201a | Flyash Silo - Bagfilter Discharge Vent #1 | | | | | |
| P201b | Flyash Silo - Bagfilter Discharge Vent #2 | | | | | |
| P201c | Two wet ash unloaders | | | | | |
| P201d | Pneumatic ash unloader | | | | | |
| P201e | Ash silo - vent | | | | | |
| P202 | Coal Crusher (secondary), conveyors and associated transfer points | | | | | |
| P202 | Crushed coal transfer to boiler bunkers – Fabric Filter | | | | | |
| P202 | Stockpile reclaimer, tunnel conveyor and associated transfer points | | | | | |

| Operating Permit Unit ID | Unit Description | Deviations noted During Period? ¹ | | Deviation Code ² | Malfunction/Emergency Condition Reported During Period? | |
|-----------------------------|---|---|----|--------------------------------|---|----|
| | | YES | NO | | YES | NO |
| P202 | Coal off-loading, conveying and transfer points to stockpile Coal discharge onto stockpile, wind erosion due to exposed surfaces | | | | | |
| P203 | Ash Haul Roads | | | | | |
| P204 | Ash Disposal Landfill Operation | | | | | |
| S001 | General Electric Combustion Turbine, Model No. 7241FA, Serial No. 297749, Natural Gas Fired, combined cycle operation, equipped with advanced low NO _x combustion system. Operated in Conjunction with a Vogt-NEM heat recovery steam generator. | | | | | |
| S002 | General Electric Combustion Turbine, Model No. 7241FA, Serial No. 297750, Natural Gas Fired, combined cycle operation, equipped with advanced low NO _x combustion system. Operated in Conjunction with a Vogt-NEM heat recovery steam generator. | | | | | |
| | Emergency Generators | | | | | |
| General Conditions | | | | | | |
| Insignificant Activities | | | | | | |

¹ See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

² Use the following entries, as appropriate

- 1 = Standard:** When the requirement is an emission limit or standard
- 2 = Process:** When the requirement is a production/process limit
- 3 = Monitor:** When the requirement is monitoring
- 4 = Test:** When the requirement is testing
- 5 = Maintenance:** When required maintenance is not performed
- 6 = Record:** When the requirement is recordkeeping
- 7 = Report:** When the requirement is reporting
- 8 = CAM:** A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred.
- 9 = Other:** When the deviation is not covered by any of the above categories

APPENDIX B: Monitoring and Permit Deviation Report - Part II

FACILITY NAME: Colorado Springs Utilities – Ray D. Nixon Power Plant
OPERATING PERMIT NO: 95OPEP106
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Malfunction _____ N/A
(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Malfunctions/Emergencies Reported (if applicable)

Deviation Code _____ Division Code QA: _____

SEE EXAMPLE ON THE NEXT PAGE

EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/04 - 6/30/06

Is the deviation being claimed as an: Emergency _____ Malfunction XX N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/06

END- 1800 4/10/06

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Malfunction/Emergencies Reported (if applicable)

5/30/06 to A. Einstein, APCD

Deviation Code _____

Division Code QA: _____

APPENDIX B: Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

SOURCE NAME: Colorado Springs Utilities – Ray D. Nixon Power Plant

FACILITY IDENTIFICATION NUMBER: 0410030

PERMIT NUMBER: 95OPEP106

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

STATEMENT OF COMPLETENESS

I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature of Responsible Official

Date Signed

Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.

APPENDIX C

Required Format for Annual Compliance Certification Reports

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Colorado Springs Utilities – Ray D. Nixon Power Plant

OPERATING PERMIT NO: 95OPEP106

REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

| Operating Permit Unit ID | Unit Description | Deviations Reported ¹ | | Monitoring Method per Permit? ² | | Was compliance continuous or intermittent? ³ | |
|--------------------------|---|----------------------------------|---------|--|----|---|--------------|
| | | Previous | Current | YES | NO | Continuous | Intermittent |
| B001 | Babcock and Wilcox Pulverized Coal Front Fired Dry Bottom SN A-001, firing coal. The coal burner igniters fire No.2 fuel oil or NG in the future. | | | | | | |
| B002 | Cleaver-Brooks boiler Model WL-2799 SN DL-60 firing No. 2 fuel oil or NG. | | | | | | |
| S003 | General Electric Model PG6541(B) SN 296510, natural gas fired, simple cycle combustion turbine equipped with dry low NOx combustion system | | | | | | |
| S004 | General Electric Model PG6541(B) SN 296511, natural gas fired, simple cycle combustion turbine equipped | | | | | | |

Air Pollution Control Division
Colorado Operating Permit
Compliance Certification Report

Appendix C
Page 2

| Operating Permit Unit ID | Unit Description | Deviations Reported ¹ | | Monitoring Method per Permit? ² | | Was compliance continuous or intermittent? ³ | |
|--------------------------|---|----------------------------------|---------|--|----|---|--------------|
| | | Previous | Current | YES | NO | Continuous | Intermittent |
| | with dry low NOx combustion system | | | | | | |
| P205 | Unit 1 Cooling Tower – Marley 6515-4-10 | | | | | | |
| P201a | Flyash Silo - Bagfilter Discharge Vent #1 | | | | | | |
| P201b | Flyash Silo - Bagfilter Discharge Vent #2 | | | | | | |
| P201c | Two wet ash unloaders | | | | | | |
| P201d | Pneumatic ash unloader | | | | | | |
| P201e | Ash silo - vent | | | | | | |
| P202 | Coal Crusher (secondary), conveyors and associated transfer points | | | | | | |
| P202 | Crushed coal transfer to boiler bunkers – Fabric Filter | | | | | | |
| P202 | Stockpile reclaimer, tunnel conveyor and associated transfer points | | | | | | |
| P202 | Coal off-loading, conveying and transfer points to stockpile Coal discharge onto stockpile, wind erosion due to exposed surfaces | | | | | | |
| P203 | Ash Haul Roads | | | | | | |
| P204 | Ash Disposal Landfill Operation | | | | | | |
| S001 | General Electric Combustion Turbine, Model No. 7241FA, Serial No. 297749, Natural Gas Fired, combined cycle operation, equipped with advanced low NO _x combustion system. Operated in Conjunction with a Vogt-NEM heat recovery steam generator | | | | | | |
| S002 | General Electric Combustion Turbine, Model No. 7241FA, Serial No. 297750, Natural Gas Fired, combined cycle operation, equipped with advanced low NO _x combustion system. Operated in Conjunction with a Vogt-NEM heat recovery steam generator. | | | | | | |
| | Emergency Generators | | | | | | |

| Operating Permit Unit ID | Unit Description | Deviations Reported ¹ | | Monitoring Method per Permit? ² | | Was compliance continuous or intermittent? ³ | |
|---------------------------------------|------------------|----------------------------------|---------|--|----|---|--------------|
| | | Previous | Current | YES | NO | Continuous | Intermittent |
| General Conditions | | | | | | | |
| Insignificant Activities ⁴ | | | | | | | |

¹ If deviations were noted in a previous deviation report, put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

² Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

³ Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

⁴ Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

- A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)
- B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).
 1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Annual Compliance Certification must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature

Date Signed

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

APPENDIX D

Notification Addresses

1. **Air Pollution Control Division**

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Matt Burgett

2. **United States Environmental Protection Agency**

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-T
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

| | |
|--------------------|--|
| AIRS - | Aerometric Information Retrieval System |
| AP-42 - | EPA Document Compiling Air Pollutant Emission Factors |
| APEN - | Air Pollution Emission Notice (State of Colorado) |
| APCD - | Air Pollution Control Division (State of Colorado) |
| ASTM - | American Society for Testing and Materials |
| BACT - | Best Available Control Technology |
| BTU - | British Thermal Unit |
| CAA - | Clean Air Act (CAAA = Clean Air Act Amendments) |
| CCR - | Colorado Code of Regulations |
| CEM - | Continuous Emissions Monitor |
| CF - | Cubic Feet (SCF = Standard Cubic Feet) |
| CFR - | Code of Federal Regulations |
| CO - | Carbon Monoxide |
| COM - | Continuous Opacity Monitor |
| CRS - | Colorado Revised Statute |
| EF - | Emission Factor |
| EPA - | Environmental Protection Agency |
| FI - | Fuel Input Rate in MMBtu/hr |
| FR - | Federal Register |
| G - | Grams |
| Gal - | Gallon |
| GPM - | Gallons per Minute |
| HAPs - | Hazardous Air Pollutants |
| HP - | Horsepower |
| HP-HR - | Horsepower Hour (G/HP-HR = Grams per Horsepower Hour) |
| LAER - | Lowest Achievable Emission Rate |
| LBS - | Pounds |
| M - | Thousand |
| MM - | Million |
| MMscf - | Million Standard Cubic Feet |
| MMscfd - | Million Standard Cubic Feet per Day |
| N/A or NA - | Not Applicable |
| NO _x - | Nitrogen Oxides |
| NESHAP - | National Emission Standards for Hazardous Air Pollutants |
| NSPS - | New Source Performance Standards |
| P - | Process Weight Rate in Tons/Hr |
| PE - | Particulate Emissions |
| PM - | Particulate Matter |
| PM ₁₀ - | Particulate Matter Under 10 Microns |

| | |
|-------------------|---|
| PSD - | Prevention of Significant Deterioration |
| PTE - | Potential To Emit |
| RACT - | Reasonably Available Control Technology |
| SCC - | Source Classification Code |
| SCF - | Standard Cubic Feet |
| SIC - | Standard Industrial Classification |
| SO ₂ - | Sulfur Dioxide |
| TPY - | Tons Per Year |
| TSP - | Total Suspended Particulate |
| VOC - | Volatile Organic Compounds |

APPENDIX F

Permit Modifications

| DATE OF REVISION | SECTION NUMBER, CONDITION NUMBER | DESCRIPTION OF REVISION |
|------------------|----------------------------------|-------------------------|
| | | |
| | | |
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APPENDIX G

Compliance Assurance Monitoring Plan

I. Background

a. Emission Unit Description:

Unit B001, Babcock and Wilcox Pulverized Coal Front Fired Dry Bottom, SN A-001, firing coal. Rated at 2,049 mmBtu/hr.

b. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations: Operating Permit Condition 1.1 (Colorado Regulation No. 1, Section III.A.1.c)

Emission Limitations: PM 0.1 lb/mmBtu

Monitoring Requirements: Visible Emissions (Opacity) and Daily Baghouse Inspection

c. Control Technology:

This boiler is equipped with a fabric filter dust collector (FFDC) to control particulate matter emissions generation from the combustion of fuel.

II. Monitoring Approach

| | Indicator 1 | Indicator 2 |
|---------------------------------------|--|---|
| I. Indicator | Visible Emissions (Opacity) | Daily Baghouse Inspection |
| Measurement Approach | Opacity emissions will be monitored by a Continuous Opacity Monitor System (COMS). | Inspections of the baghouse will be conducted daily to check for mechanical or operational problems. |
| II. Indicator Range | <p>An excursion is defined as any six minute average opacity reading of greater than 10%.</p> <p>Excursions trigger the permittee to investigate the baghouse performance and make any repairs or adjustments as necessary.</p> <p>A history of the corrective action(s) will be maintained and made available upon request.</p> | <p>An excursion is defined as detection of a mechanical or operational problem during the daily inspection.</p> <p>An excursion is also defined as failure to perform the daily inspection for two consecutive days.</p> <p>Excursions trigger the permittee to investigate the baghouse performance and make any repairs or adjustments as necessary.</p> <p>A history of the corrective action(s) will be maintained and made available upon request.</p> |
| III. Performance Criteria | | |
| a. Data Representativeness | Measurements are made at the baghouse exhaust. | Daily inspection will include the ash silo, baghouse valves, compartment vents, fans, and switches. |
| b. Verification of Operational Status | N/A | Documentation in plant records will serve as the verification that the daily inspection has been performed. |
| c. QA/QC Practices and Criteria | The COMS is in conformance with the applicable requirements in 40 CFR Part 60. | Trained personnel perform inspections and maintenance using established procedures and forms. Procedures, forms, logs, and records shall be made available to the Division upon request. |
| d. Monitoring Frequency | Continuous. | Daily. |
| e. Data Collection Procedures | Opacity measurements will be performed in accordance with the requirements in 40 CFR Part 60 Subpart A § 60.13. | Results of inspections and maintenance activities are recorded by the plant operator and made available upon request. |
| f. Averaging Time | COM data shall be reduced to 6-minute averages as required by 40 CFR Part 60 Subpart A § 60.13. | N/A |

III. Justification

a. Background:

Colorado Springs Utilities – Ray D. Nixon Power Plant produces electricity. This unit is a coal fired utility boiler. Particulate Matter is controlled with fabric filters prior to discharge via the stack. The design collection efficiency of the fabric filter is 99.9 percent.

b. Rationale for Selection of Performance Indicators

Monitoring of the baghouse operational parameters is intended to keep the baghouse operating within the manufacturer's specifications. Potential issues in the operation of a baghouse that can compromise

its ability to effectively control particulate emissions can generally be categorized as issues with torn and/or broken bags or seals, and characteristics of the ash cake on the bags. The indicators described below were selected for their ability to provide an indication or warning of potential problems with any of these factors.

Visible Emissions (Opacity)

Based on the relationship between particulate matter in a flue gas stream and opacity, an increase in opacity is a valid indication of increased particulate emissions due to compromised baghouse performance. Increased opacity emissions from typical levels, such as a sudden spike or a gradual increase are an indication that baghouse performance has decreased.

Daily Inspection

The daily inspections of the mechanical operations of the baghouse will alert the plant operators of any potential failures prior to a significant increase in visible emissions.

c. Rationale for Selection of indicator Ranges

Visible emissions (opacity)

An increase in opacity, defined as an opacity reading greater than 10% is a possible indication that a bag has failed. During normal operations with no bag failures, opacity emissions will be below 10%.

Daily Inspection

Inspection on a daily basis for the presence of a mechanical or operational problem will provide a means to detect possible problems before they develop into excess emissions.